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ABSTRACT

An appraisal was made of the policy implications of a commitment by the University of the West Indies (UWI) to develop distance education as an integral feature of its teaching responsibilities. Information was gathered through interviews with 163 educators and administrators at the 3 campuses of the University of the West Indies, its 8 member countries, and the University of the Virgin Islands. The study found that the proportion of students enrolled in distance education is expected to grow greatly by the year 2000, straining the resources of the university. Therefore, more faculty members and administrators are needed and technical equipment must be upgraded and increased in order to provide distance education. The study concluded that the university is becoming much more a dual-mode delivery system, with on-campus and distance education becoming more equal in importance and emphasis. The study recommended that the university should embark on a broad-based range of programs in four categories: (1) certificate, undergraduate, graduate, and diploma programs; (2) leadership programs drawing on research writings and experience distinctive of UWI and in the Caribbean; (3) noncredit programs of continuing education and professional updating; and (4) distance education programs for students undertaking sixth form or preliminary courses. (KC)

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DISTANCE EDUCATION AT THE UNIVERSITY OF THE WEST INDIES

Report of an appraisal carried out on behalf of The Commonwealth of Learning

by

WILLIAM RENWICK, DOUG SHALE, CHANDRASEKHARA RAO

U.S. DEPARTMENT OF EDUCATION
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Professor James A. Maraj
President
The Commonwealth of Learning
Vancouver, British Columbia

Dear Professor Maraj,

The team you appointed to carry out an appraisal of distance education at the University of the West Indies has completed its task and I have much pleasure in transmitting its report to you and, through you, to Hon. Sir Alister McIntyre, Vice-Chancellor of the University of the West Indies.

My colleagues and I take this opportunity to express our deep satisfaction with the interest and cooperation that have marked our visits to the University and its member countries. We visited its three campuses and 11 of its member countries and held discussions with more than 160 men and women, some of them several times. In the course of our appraisal we also circulated three draft papers which set out our thinking as it was evolving, and invited responses from members of the University and from people in the wider Commonwealth Caribbean. Here we acknowledge the many helpful comments we received, some of them in writing and many others in later discussions based on them. The result, we believe, is a report which should attract a high level of support in the University and in the Caribbean communities it serves.

In the course of our appraisal we have incurred many debts of gratitude: to Hon. Sir Alister McIntyre and his many colleagues who assisted us in various ways; the members, officials and people outside the University who made themselves available for discussion with us; Professor the Hon. Leslie Robinson, Coordinator of COL Programmes, Caribbean, for smoothing our path and for many helpful suggestions; and Dr. Dennis Irvine, Director, Caribbean Programmes, for so skilfully orchestrating our project from beginning to end.

Yours sincerely,

William Renwick
For the Appraisal Team

June 1992

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TERMS OF REFERENCE

The appraisal is to:

- study the University's continuing education and other outreach programmes;
- appraise possibilities for further developments in academic policy for off-campus study towards University qualifications;
- have regard to the present contribution of The University of the West Indies Distance Teaching Experiment (UWIDITE) and to possibilities for its further development for distance learning;
- have regard also to the capital and recurring costs of any developments in its policies for distance education that might be proposed;
- and prepare a report after appropriate consultation with the Vice-Chancellor and members of the University, and other persons, agencies and organisations in the Caribbean with interest in the University's contribution to distance education.

EXECUTIVE SUMMARY

The report appraises the policy implications of a commitment by the University of the West Indies to develop distance education as an integral feature of its teaching responsibilities. It proposes a dual mode form of organisation as the best way of proceeding. Distance education and dual mode are thus central ideas in relation to which University policies will need to be adapted or developed.

Distance education is conceived broadly and includes any organised arrangement by which teachers and students who are normally separated from each other in space, and often too, in time, are brought into regular relationships for teaching and learning. (p.11) Dual mode is used as a shorthand description of teaching institutions that enrol off-campus as well as campus students and have systematic teaching arrangements for both categories of student. Going more comprehensively dual mode will change the character of the University. By creating a sound basis for the further development of distance education, UWI will also be seizing an opportunity to improve the quality of its teaching for campus as well as off-campus students. (p.12,pp.33-38)

Distance education is discussed under five related headings : the policy framework; the development function; the delivery system; student support; and evaluation. (pp.17-18, 24, 25). The premise is that a policy commitment to distance education has much bigger consequences for the University as a whole than the creation of a new faculty.(pp.33-38). If the University proceeds along the lines we propose it will have to be managed in ways that enable its teachers to do the best they can for the very different requirements of their distance education students and their campus students. It will be able to draw on the experience of similar institutions in other parts of the world, and it has a vital contribution to make not only to the development of distance education but to the quality of University teaching in the Caribbean and in the wider world. (p.91)

The report highlights the singular situation of UWI as a provider of distance education. With three campuses and 14 participating countries it has an inner complexity not found in any other University known to us. Added to this are the large number of tertiary level institutions already in operation or being developed in

the participating countries, and the University's commitment, through its policies for outreach and institutional relations, to work cooperatively with them (pp.39-41) The University's work in strengthening the education systems of its member countries can also take on new dimensions when it develops its capacity as a provider of distance education(pp.31-32).

The University's projections for the year 2000 (Table 1, p.15) envisage one in eight of its registered students being enrolled as distance education students, and that proportion can be expected to grow as programmes of study of good quality become available. To these projections must be added large numbers of men and women who already take part in University programmes of continuing education. These numbers can be expected to increase under better arrangements for the delivery of distance education. We think that the University should from the start embark on a broadly based range of programmes of study falling into one or other of four main categories:

- certificate, undergraduate, graduate, and diploma programmes;
- leadership programmes that draw on research, writings and experience distinctive of UWI and the Caribbean;
- non-credit programmes of continuing education and professional updating;
- distance education programmes for students undertaking sixth form or Preliminary courses.

In the detailed suggestions we make on pages 26-32 we have been guided by the priorities in the University's Decade Development Plan and there has been a general endorsement of them in the discussions we have had inside and outside UWI. All of them would have an important contribution to make to the University's objectives for human resource development among the peoples of the Caribbean.

We think, too, that the proper planning unit should be programmes of study, whether these comprise credit courses for certificates, diplomas or degrees or non-credit courses that come under the heading of continuing education. (pp.43-44) Though the University will be teaching in two modes - distance and face-to-face - many students will experience both modes during a given programme of study. And as a University with three campuses, there is scope for UWI to include distance

modes in the teaching of some campus based courses. To the extent that that happens, it will move beyond dual mode and become a mixed mode university. (p.38)

We foresee many more claims being made on the University than it will be able to satisfy in the foreseeable future through distance education programmes. There will be inevitable tension between aspirations for 'open' education and limits imposed by the funds and expertise available to the University. Priorities for the development and teaching of distance education programmes will have to be struck and the University should place great emphasis on the quality of its offerings. (pp.40-41) We think that distance education students should be required to pay fees. (pp.67-68) Special arrangements will need to be made so that they can have the use of prescribed textbooks. (p.68)

The University has been introduced to distance education primarily through UWIDITE and this has developed some perceptions and working assumptions that will need to be reviewed as the University puts its policy for distance education on a firmer footing. UWIDITE has focused attention very usefully on telecommunications but teleconferencing will be only one facet - albeit an important one - in properly organised approaches to distance education. In terms, too, of its telecommunications equipment and services, UWIDITE runs as a self contained telecommunications operation but the University will need to consider how its distance education activities should be related to the computer/communications facilities it is planning for general University use (pp.73-75). Organisationally, too, the link has been made between distance education and the School of Continuing Studies but the University's distance education activities should, as a matter of policy, become a function of all faculties. (p.56) And the University's distance education efforts have so far (and not surprisingly) been marginal to its main teaching responsibilities, raising many questions about the conditions under which University teachers should take part in future.(pp.80-85)

Responsibility for the operations and developments associated with UWIDITE should become part of the duties of a Director of Distance Education and be administered as an integral part of the Distance Learning Centre. The continued use of the acronym UWIDITE as the symbol of its distance learning activities is a matter for the University to consider. (p.23, pp.87-88) The University should continue to plan and evaluate its distance education policies in a context of research

and development. (pp.69-72)

The organisation we propose has large implications for the University Centres and calls for a reconsideration of the roles and responsibilities of Resident Tutors and the accommodation and resources to be made available to them. (pp.54-58,66-69,p.72,p.90)

The transition to a dual mode university will require the careful orchestration of many decisions and initiatives. The most important of these for the inner life of the University will of course be taken within the University itself. But additional funding will be necessary for accommodation, equipment, telecommunications, staffing and recurrent operating expenditure and these will require the consideration of the University Grant Commission, decisions by the governments that support the University, and the continuing support of development assistance agencies. (pp.86-90)

The main proposals are :

1. Distance education operations should be developed as an integral part of UWI, which would thus become a dual-mode (and, in time, a mixed-mode) University. (pp.34-38)

2. Distance education programmes should have, as their primary instructional medium, multi-media, print-based packages of learning materials, supported by tutoring arrangements which in some cases will be provided by local tutors and in others through tele-tutorials. (pp.62-69)

3. Through its membership of the Association of Caribbean Tertiary Level Institutions and in consultation with tertiary level institutions, the University should continue to foster the joint development and shared teaching of distance education programmes; work towards agreed policies on academic standards, with their implications for staffing, library and laboratory resources; and devise mutually agreed principles for the recognition of courses and the transfer of student credit. (pp.20-22, 40-44)

4. The policy formulation and overall management of the University's distance

education activities should be the responsibility of a Distance Education Management Board, chaired by the Vice-Chancellor and comprising the University's senior decision makers with responsibilities for distance education. (p.45)

5. Costs to the University associated with the development, delivery and evaluation of distance education should be funded from the University Centre budget in accordance with agreed policies for the setting of priorities, assigning responsibilities, and allocating funds. (pp.49-53, 69-72)

6. The University should establish a Distance Learning Centre to administer its distance education activities in cooperation with its teaching faculties. (p.54)

7. The Distance Learning Centre should have the level of representation and status equivalent to that of a faculty and be headed by a director of the rank of a professor. (p.54) It will require a staff of about a dozen academic, technical and administrative appointments. Some of these positions would be filled through redeployment, others from the University's recurrent budget, and others again from outside funds. (pp.52-53,p.78)

8. Teachers in the University's academic departments should be the primary resource for the creation and revision of course material for distance education programmes. (pp.34-36; 62-66)

9. Course materials should be produced by course teams set up for particular distance education programmes. Each team would be constituted by the Director of the Distance Learning Centre in consultation with the appropriate University deans, campus deans, and heads of department. (pp.62-66)

10. Though it seems likely to have its main location on one campus, the Distance Learning Centre must have a presence on all campuses. (pp.75-79) Deputy directors should be appointed for the other two campuses.(p.79, 88) We see great merit in planning its accommodation in conjunction with teacher development units on each campus.(p.89)

11. Responsibility for the provision of distance education programmes will be

dispersed across the University campuses and faculties and powers of decision will need to be distributed. The electronic requirements for distance education should be considered in relation to the University's overall requirements, but distance education will be a main user. The computerised network now being planned to link the three campuses will provide a fibre optic backbone that could then be used for its telecommunication links between campuses, with University Centres, and elsewhere in the University region. (pp.73-75)

12. As and when required, all University teachers should be expected to participate in distance as well as campus programmes of study and contracts of appointment should include an appropriate provision.(p.80)

13. University teachers should be inducted into their role and responsibilities as distance education teachers, and there should be a continuing programme of staff development relating to distance education.(p.23, p.81)

14. The contributions that University teachers make to distance education should be planned and administered as a regular part of their teaching responsibilities. (pp.81-83)

15. As part of a wider policy of giving recognition to excellence in teaching, the University should ensure that the criteria it uses for purposes of assessment and promotion allow its teachers to include their contributions to distance education among their claims to consideration. (pp.83-84)

INTRODUCTION

Distance education, in the most general sense of the term, is organised arrangements by which teachers and students who are normally separated from each other in space and often, too, in time are brought into regular relationships for teaching and learning. The formal organisation can differ greatly in the requirements and expectations that teachers and students have of each other, the means by which they communicate with each other, the intensity and duration of their working relationships, and the scope students themselves have to influence the curriculum they are to follow. At one extreme are teachers and students who never meet each other: their contact is entirely through printed and written words which they exchange through postal or courier services. At the other extreme are students who are able to keep in touch with their teachers regularly by telephone and, through teleconferences, with other students as well, and who are able to take part in face-to-face workshops and summer schools. But, however it is organised, distance education proceeds on the assumption that its typical teaching and learning encounters will not take place on campus, nor will they be face-to-face. They will be encapsulated in media - in books, course guides, study assignments, audio and (perhaps) video tapes as well as charts, diagrams and visual illustrations - and they will be organised in a delivery system that requires regular interaction between students and their teachers and tutors on the basis of completed and marked assignments.

Distance education is thus to be thought of both in terms of what it is, or might be, and what it is not. Comparisons, implied or stated, with face-to-face teaching are inevitable for two main reasons. In the course of more than a century face-to-face methods of teaching have become so widespread as to be not only the typical but, for many, the expected way of organising teaching and learning. The norms of what constitute good teaching and effective learning are still commonly provided by the face-to-face mode and proponents of distance education often have to demonstrate that alternative modes which make little if any use of face-to-face teaching will not be an inadequate second best.

For most people, too, distance education is 'the new boy on the block' and for that reason alone is subject to more intense scrutiny than face-to-face teaching whose

credentials have long been taken for granted. But, however they are organised, face-to-face and distance education are both organised systems of teaching whose aim is to produce learning. Good teaching is at the heart of both enterprises and, to be effective, must be supported in various - but typically different - ways if students are to achieve stated educational objectives.

Our task in this report is to appraise possibilities for the development of distance education as a complementary mode of teaching for UWI. It is in the nature of that task that we will write about distance education in relation to, in contrast with, in comparison with face-to-face teaching on University campuses. But we would not want to be understood as writing about the two modes as if they were mutually exclusive approaches of teaching and learning, certainly not that they should be thought to be in opposition to each other. They are best thought of as different ways by which the knowledge and skill of teachers can be made available to students whose circumstances may be radically different. We write in the expectation that when distance education becomes a regular, properly organised part of the University's educational mission, many of its teachers will be teaching in both modes: some of their students will be on a campus and their studies will be organised in relation to the facilities and personal stimulus of campus life; others will be off-campus and their studies will be organised in ways that will facilitate learning at a distance.

There will also be important opportunities for cross-fertilisation. We have been struck by the number of teachers on the three University campuses who would welcome a fuller commitment to distance modes for the benefits that could also accrue for their face-to-face teaching responsibilities. The longer term benefits of going more comprehensively dual model may well be to develop mixed mode styles of learning for campus as well as off-campus students.

WHY DISTANCE EDUCATION?

Under its earlier name of correspondence education, distance education has long been looked upon with gratitude by people who have benefited from it. Linked as it now can be with telecommunications technology, distance education has the potential to extend its benefits to many more people in future than it has in the past. It is probably true that, during the 1980s, distance education was the fastest growing sector of organised educational provision. All indications are that it will continue to expand during the 1990s.

Apart from its benefit to individuals there are other compelling reasons why this is likely to happen. It is hard to think of a government anywhere in the world that is not faced with much greater demands for educational services than can possibly be met through face-to-face modes of teaching. Governments have increasingly begun to develop and strengthen distance education services as an important part of strategies for meeting public expectations for publicly funded education. Distance education is making a significant contribution to national goals by increasing access to education, thus helping to bring about greater equality of educational opportunity, and by upgrading, refurbishing and adding to the professional, technological and practical skills of men and women, thus serving goals of national development and adaptation to changing technological and economic imperatives.

From two sides then - from the circumstances of individuals and the intentions of governments - distance education is being mobilised as a major form of educational provision. So far as Caribbean governments and UWI are concerned, the case for stepping up distance education services no longer needs to be argued. The University is regarded by governments as the principal intellectual resource serving the needs of the peoples of the Commonwealth Caribbean; and its comprehensive *Development Plan 1990-2000 AD* envisages initiatives through distance education that will be vital to the achievement of quantitative and qualitative improvements in tertiary education in the University region. With an estimated expenditure amounting to 8.75% of the Decade Development Plan, continuing and distance education has been identified as the University's third highest spending priority in a list of 19 items. It is in that context of expectation that

we have undertaken our appraisal.

Because the University has already spelt out in its Decade Development Plan the roles it wants distance education to perform, we have been able to concentrate less on what ought to be done under this mode and more on the policy issues associated with how it should be done.

The policy objective emerges very clearly from the enrolment targets for the year 2000 set out in the Development Plan, and illustrated in Table 1. Off-campus student registrations for recognised University qualifications are by then expected to be 2,200 men and women in a total student registration of 18,500. On the basis of the University's projections, 58% of its off-campus students will be living in non-campus countries, 36% in Jamaica and 5% in Trinidad and Tobago. In total they are expected to amount to one student in every eight enrolled in University degree, diploma and certificate programmes. These estimates do not include projections for the large number of men and women who also undertake courses of continuing education under the University's auspices. They will continue to be an important constituency in their own right - and an additional source of demand - for the developments in distance education we will propose.

We think it quite possible that the University's estimate of demand for distance education will prove to be lower than the actual demand in the year 2000. There are already signs, we understand, that the targets for on-campus registrations will be reached before the end of the decade. If, as may well be the case, on-campus enrolments beyond the projected levels have to be restricted, and if students who would otherwise have studied full time on a campus are for financial reasons unable to do so, there will be an additional demand for distance education where alternative courses in the distance mode are available. Furthermore, the availability of programmes of distance education of good quality can be expected to stimulate their own demand.

Whether the University will be able, by the end of the century, to service the requirements of 2,200 or more off-campus students enrolled in credit programmes will depend on several factors: how soon it is able to reorganise and strengthen its arrangements for off-campus study; how soon it is able to upgrade existing courses and introduce new programmes of study by distance modes; the availability of

suitably qualified tutors to supervise the work of off-campus students; and the financial resources that can be devoted to the development and delivery of distance courses and the support of students enrolled in them.

TABLE 1 : UWI ENROLMENT TARGETS FOR YEAR 2000

	Total (1)	Off-Campus Reg. (2)	On-Campus Reg. (3)	1988/89 UWI Reg.[1] (4)
North West JA	8.020	790	7.230	5.209
Other NW[2]	560	310	250	122
South TT	5.810	120	5.690	4.206
East BB	2.020	20	2.000	1.699
Other[3]	1.880	960	920	481
GY & Other Countries	210	NA	210	179
TOTAL	**18.500**	**2.200**	**16.300**	**11.896**

1. Excludes Challenge and other off-campus registrations therefore not strictly comparable with column (1).

2. Belize, Bahamas, Cayman and Turks & Caicos Islands.

3. Anguilla, Antigua, British Virgin Islands, Dominica, Grenada, Montserrat, St. Kitts, St. Lucia, St. Vincent.

From the University of the West Indies, Overview Development Plan 1990-2000 AD, p.9

OUR APPROACH

Our terms of reference require us to consider distance education for UWI in a wider context of University policies. We are to 'study the University's continuing education and other outreach programmes', 'appraise possibilities for further development in academic policy for off-campus study towards University qualifications, and 'have regard to the present contribution of UWIDITE and to possibilities for its further development for distance learning'. The key words and phrases are thus: continuing education, outreach programmes, academic policy, off-campus study, University qualifications, UWIDITE, distance learning, and appraisal, all considered in relation to further development. These words and phrases cluster around two of the University's most important missions: to increase opportunities for University study, particularly for men and women in non-campus countries; and to disseminate knowledge and information about the University's activities.

The policies for continuing education, University outreach and off-campus study we have been asked to appraise are the accumulated response to debate that has been going on since the founding of UWI. Inevitably we have been drawn into that debate in the course of our discussions. At UWI, as in virtually all educational institutions, policies are explained primarily in relation to their histories and whether they are perceived to have succeeded in doing what was intended for them. It is not part of our task to review those histories but we will refer as necessary to some of their consequences in our appraisal of academic policies and future possibilities. Our understanding of the background to the present position has been greatly assisted by discussion with people who have been closely associated with the University's development and from our reading of: Philip Sherlock and Rex Nettleford's The University of the West Indies. A Caribbean Response to the Challenge of Change,(1990); G.C. Lalor's Report of the Caribbean Regional Services Study(1982); G.C. Lalor and Christine Marrett's University of the West Indies Distance Teaching Experiment (UWIDITE) (1986); Zellyne D. Jenning's Innovation in Tertiary Education in the Caribbean : Distance Teaching in the Faculty of Education at the University of the West Indies(1990); J. Colin Yerbury's Report for the Commonwealth of Learning(1991); and Dorothy M. Pennant's Preliminary Study : Continuing and Distance Education University of the West Indies Base Document CDB Development Project(1991).

In what follows our focus is on the further development of distance education in the context of University policies for continuing education, outreach programmes, and off-campus study for University qualifications. We refer from time to time to distance education, distance teaching, and distance learning. When we speak of distance education our reference is to organised arrangements for teaching and learning at a distance. When we refer to distance teaching it is to teachers, course developers, tutors and others in their efforts to facilitate the learning of men and women studying through distance education modes. When we refer to distance learning we have in mind distance education students and what can be done to facilitate their learning.

Our approach, then, is to think of distance education as organised systems for teaching and learning and we will appraise the University's policies for the further development of distance learning under the following five related headings:

1. **The Policy framework.**
   The University's institutional arrangements for its overall policies for distance education, setting priorities for development, allocating funds for distance education purposes, assigning responsibilities and authorising the conditions under which they are to be carried out.

2. **The Development function.**
   The organisational arrangements for conceptualising and producing the printed and related supporting materials that will be the main carriers of the University's distance teaching efforts.

3. **The Delivery system.**
   The practical arrangements linking registered off-campus students to the instructional and any other support services intended to assist them as they work through planned courses of study.

4. **Student support.**
   The policy governing the arrangements for distance students to take part in regular tutorials in their courses of study and to receive guidance in their study programmes.

5. **Evaluation.**

The policy for the systematic review of the effectiveness of the University's distance education programmes in achieving their objectives and in meeting the expectations of distance students, and for the evaluation of proposals for the further improvement of the University's distance education activities.

WORDS AND THEIR OPERATIONAL MEANINGS

The language of educational discourse is far from standardised: the same terms have different operational meanings in different parts of the world. Continuing education is one such term. In some education systems it is given a generic meaning and refers to all educational activity beyond the completion of a person's formal education. For some countries and for some people the cycle of formal education will extend only to the end of primary schooling, if that far; for others the boundary between the first phase of formal education and continuing education will be at the end of secondary education or at some point in the secondary system; for others again the boundary will be at the completion of a tertiary qualification - a degree, diploma or a professionally recognised certificate. On this definition, continuing education is roughly synonymous with adult education, though in some countries it will deal with people who are not yet adult but whose formal schooling has already come to an end without their having attained the kind of qualification that would allow them to proceed to a higher educational level. It extends all the way from second chance courses for such people, through refresher and upgrading courses, to programmes of study for advanced formal educational qualifications. It thus comprehends formal as well as informal educational activities - formal in the sense of courses of study that lead to qualifications that are recognised for academic credit or for professional vocational requirements; and informal in the sense of short courses that meet particular requirements or cater to particular interests but do not of themselves enhance a person's formal academic or vocational status.

In other countries - notably in the USA and Canada - a distinction is made between continuing education and professional continuing education. This usually corresponds to the distinction between formal and informal education: formal courses give credit towards recognised academic qualifications but informal courses do not. The operational meaning of continuing education at UWI seems to be more in keeping with this second meaning than with the first. Organisationally, continuing education is one of the responsibilities of the University's Office of Outreach and Institutional Relations, and is administered through the School of Continuing Studies and, in the non-campus territories, the offices of Resident Tutors and Staff Tutors. What is now the School of Continuing Studies was until recently the Department of

Extra Mural Studies. As the earlier name implied, its activities were conducted outside the walls of the University and for the most part fell under the category of non-formal, continuing education.

Since the late 60s, however, the relationship between some of the students enrolled in courses administered by Resident Tutors and the University has changed. The Challenge Programme made it possible for students, many of whom were not qualified to be admitted to University degree programmes, to 'challenge' the system by registering for some 100 level and certificate courses and sitting the University's end of year examinations. As originally conceived, Challenge was not an instructional programme. It merely allowed students to prove that they had acquired sufficient knowledge by whatever means to merit University credit at the 100 level. Successful completion of the subjects required for Year 1 gives the right, under certain conditions, to proceed to Year 2 as a campus student. Successful completion of certificate programmes is also regarded by the University as an acceptable qualification for matriculation and can give credit towards some Year 1 courses of study. Over the years, and to varying extents, the University has provided some assistance to these students beyond the availability of course outlines and book lists. University lecturers make short visits to non-campus countries to provide concentrated series of lectures and tutorials, and to advise local tutors. Resident tutors organise tutorials using local tutors. The Challenge Programme has in this way come to include elements of University outreach.

In an increasing number of non-campus countries it has also added some features of distance education. UWIDITE has brought the possibility, through teleconferencing, of direct voice and visual communication between lecturers on a campus and students sitting in tutorial groups in University centres in non-campus countries and, more recently, in other parts of Jamaica and Trinidad and Tobago.

To the extent, then, that the Challenge Programme and UWIDITE have brought campus teachers into teaching relationships with off-campus students the earlier distinction between University study and extra mural study has begun to be breached. This has happened as a result of University initiatives under the headings of outreach and distance education. But these far from exhaust University initiatives under either heading. Several faculties have also developed outreach activities and some of these are beginning to incorporate elements of distance education. The

Faculty of Education has close working relationships with teachers colleges and other tertiary level institutions throughout the University region, some of which are resulting in the development of upgrading courses for serving teachers that incorporate distance education methods. Others fall under the heading of outreach. Tertiary level institutions are teaching some or all of the courses required for a B.Ed. degree awarded by the University. The Faculty of Agriculture in association with Wye College in Britain is developing a postgraduate course in agricultural development for agriculture extension officers and others directly engaged in agriculture in the non-campus countries. The Faculty of Engineering has the electronic equipment it needs to receive professional programmes via television and, in consultation with professional engineers working in Caribbean countries, is actively exploring ways by which it can use distance education methods for the further professional education of engineers. The Faculty of Medical Sciences at St. Augustine has equipment that can be used for teleconferencing and staff whose experience, though gained from developing media to support teaching programmes within the faculty itself, is ideally suited to the development of courses using distance education modes.

Three main points emerge from this discussion. The first is that, in addition to the work of The School of Continuing Studies, the University is actively engaged in continuing education through the work of its various teaching faculties. Regardless of whether these initiatives are called continuing education or professional continuing education they resemble each other in their methods and approaches, and they are all encountering similar problems. Secondly, there is a great deal of overlap among the functions of continuing education, University outreach, institutional relations, and the Office of University Services. The functions themselves are a distinctive feature of the work of the UWI, and the overlaps reflect the complexity of its relationship with the peoples and governments it serves and the many other tertiary level institutions, official agencies, and professional associations in the Commonwealth Caribbean. Where, for most universities, continuing education activities take place in parallel with, but separate from, other University responsibilities, at UWI they are often - and rightly - pursued in combination with other objectives. The students for whom courses of continuing education are devised may be enrolled in some other tertiary level institution, they may be tutored by someone employed by one of the University Centres, and they may take part in teleconference tutorials that originate from one of the University campuses. The

lecturers responsible for designing and teaching the courses may similarly have a range of contacts with lecturers in other tertiary level institutions and with tutors in non-campus countries that University lecturers engaged in continuing education programmes in other countries would not expect to have.

The third point, and the most important one for the purposes of our appraisal, is the extent to which distance education approaches are becoming an integral part of these interrelated functions of continuing education, University outreach, and institutional relations. That provides the context within which we can discuss UWIDITE.

The University of the West Indies Distance Teaching Experiment (UWIDITE) produced a break-through in the use of telecommunications that has opened up possibilities that were previously outside the expectations of people working in education in the Commonwealth Caribbean. The problems of communication between isolated communities separated by vast expanses of water have to be experienced to be understood. UWIDITE has demonstrated some of the ways by which they can be overcome. Students can interact with the lecturers who are teaching their courses. The people responsible for teaching courses for distance students can consult each other even although they are located in different countries. The University is able, through UWIDITE, to have voice contact with its lecturers and officers in most of its member countries and this has greatly facilitated communication and improved the management of courses associated with the UWIDITE technology. The importance of such communication can be assessed in a negative way from conversations with people in the Bahamas and Belize. As yet they are not part of the UWIDITE network and they feel isolated and remote from the University campuses, and less well informed about University developments than they want to be.

Without question, UWIDITE has changed the way many people think about distance education on the University campuses and in the non-campus countries. A number of University lecturers and teachers and leaders from the wider community have participated in teleconferences and have become aware of its possibilities and limitations. Those most closely associated with UWIDITE over the years are aware that it has become something of an icon but they are also realistic about what it can and cannot be expected to achieve. UWIDITE is a piece of technology that enables

people to hear each other and talk to each other while separated by any amount of distance and to attend to visual information which they will see, or themselves produce, for transmission by slow scan television or a telewriter. It is one among other technologies that can be used to overcome the separation of teacher and learner or of colleagues. It is not synonymous with distance education but, as one of a family of technologies, it can have a vital contribution to make to effective distance education.

Again, those most closely associated with UWIDITE are fully aware of that. They are unanimous in identifying two main deficiencies (other than technical deficiencies of the equipment) of the distance education programmes identified with UWIDITE. First, it has not been possible to give enough attention to the preparation and publication of printed materials for use by students who will participate in regular teleconference tutorials. Second, it has not been possible to give enough attention to the training of University lecturers and others who initiate tutorials via UWIDITE in the techniques of preparing for and conducting such tutorials.

UWIDITE, it is important to underline, was conceived and has been conducted as an experiment in the use of telecommunications. It uses technology that was at the leading edge of satellite communication a decade ago but other technological possibilities are now available that can achieve the same objectives but in ways that give much greater operational flexibility. As we see it, the University will need to develop a telecommunications policy capable of great operational flexibility to provide effective support for the various initiatives in distance that are being worked on in the School of Continuing Studies and in various faculties. In what follows, therefore, we will resist the temptation to speak of UWIDITE as if it were a self-explanatory shorthand either for distance education or for telecommunications technology. The further development of the technology that can be made available through the UWIDITE installations should certainly be part of a University policy for a comprehensive telecommunications network. But it will be one among other developments in distance education that make some use of the possibilities of telecommunications technology.

Our final comments in this discussion of words and their operational meaning are accordingly about distance education. Distance education is not to be identified

with any one technology, nor is it to be identified with any particular form of organisation or delivery. The form of any system of distance education will be related to:

- the circumstances of students;
- the availability of postal or courier services, electricity, telephone services and other forms of communication such as public radio and television;
- the availability of qualified local people to act as tutors and advisers and of local libraries and laboratories and other facilities for practical work;
- the resources of knowledge and expertise available to those originating distance education programmes and the technologies they can call upon;
- the amounts of money that can be used to develop teaching materials, a delivery system, support services for students, and for evaluation, research and development associated with distance education;
- and the effectiveness of the institution's management of its policies for the design and delivery of its distance education programmes.

Distance education is thus best thought of in terms of the strategies and systems that are devised to make it happen. Distance education *per se* is not itself an educational programme but organised systems designed to deliver planned educational programmes. The programmes in use at any given time will be the result of a continuing dialogue about how a given content might be presented most effectively through a particular delivery system.

The essence of organised distance learning is that, with varying amounts of direct or indirect assistance from a lecturer or tutor, and with varying amounts of contact with students undertaking the same course, a student works progressively

through a course of study materials, submits assigned work which is marked and returned, and is assessed during the course and/or examined at its end. A great many variations can be played on this basic theme but the keys to success lie in :

- well planned courses and skilfully devised printed and other supporting materials for students to work through;
- opportunities for personal interaction between students and their teachers or tutors;
- provision for students to have any problems associated with a course of study resolved quickly;
- the quick and regular return of marked assignments with guidance on whether the student is performing up to expectation;
- having provision for student and other evaluations of course materials and of the management of courses to be fed back to course designers and course lecturers with a view to improving what is on offer to students.

Nor is distance education to be identified with any one level or kind of education. At UWI, particularly through courses conducted through UWIDITE, it has become associated largely with short courses of continuing education and professional upgrading and refreshment, and with the tutoring of students studying off-campus for the University certificates in business and public administration or for Year 1 of a B.Sc. Social Science. But distance education in one form or another can be used successfully for higher levels of undergraduate study, for post-graduate study, for primary and secondary education, and for a wide range of technical and vocational courses, as well as for many aspects of professional and other forms of continuing education.

POSSIBILITIES FOR DISTANCE EDUCATION PROGRAMMES

In thinking about possibilities for development and delivery as programmes of distance education we have been guided by the priorities of the University's Decade Development Plan, our knowledge of the possibilities of distance education, and our much more impressionistic knowledge of what might be practicable in the Caribbean. The thesis of the Development Plan is that 'further growth of Caribbean economies will depend upon the establishment of a pattern of development principally dependent on human resources and knowledge, with science, technology, management and organisation as critical elements of the development process'*. In the strategy for human resource development outlined in the Plan the following points stand out:

- tertiary enrolment rates are lower than they should be;
- greatly expanded access to University level education open to residents of all its contributing countries must be at a cost which the countries collectively can bear;
- the relevance, quality, and usefulness of academic programmes must be enhanced;
- there are major human resource deficiencies in science (including computer science), technology, and management;
- knowledge about Caribbean society, including the non-Anglophone countries, must be expanded, intensified, and disseminated;
- the expertise of University teachers should be used collaboratively with that of teachers in other tertiary level institutions with the aim of improving the effectiveness of tertiary education in all the countries of the University region;
- the objectives of national and regional development call for national education systems of greater effectiveness, and the University has a vital contribution to make to the professional education of primary and secondary teachers.

* The University of the West Indies. Overview Development Plan 1990-2000 AD, pp.1-3

Distance education is envisaged in the Decade Development Plan to make a significantly increased contribution to the achievement of UWI's objectives for human resource development. This calls in turn for the University to work on a broad front. In what follows we suggest that its contribution should be thought of as falling under one or other of four categories. The ones we have chosen are intended for further discussion within the University itself and are presented as categories of programmes rather than as categories of recipients. They correspond broadly to a division into pre-university, undergraduate, post-graduate, and continuing education programmes. In the context, however, of off-campus study through distance modes, the people for whom they are intended share one or more of the following characteristics. Apart from some Preliminary students, they are mature men and women. Those who are in career positions want to deepen their knowledge, improve their formal qualifications, learn new skills. Many of those who are not in formal employment - women in particular - are looking for a second chance to study for qualifications that many would then want to use for career purposes. Those who already have vocational qualifications want to refurbish their knowledge and keep up to date with new thinking and new practices in their field. Whatever their personal backgrounds, the circumstances of their lives are such that they cannot study on a University campus. They live in non-campus countries or in parts of campus countries remote from the University. Distance education in some form is the means by which they can satisfy their educational aspirations.

However the University conceives and categorises its programmes, it must be careful not to be perceived as being interested only - or even primarily - in programmes that lead to formal university qualifications. A balanced programme of distance education offerings should therefore include courses of study from all of the following four categories.

1. Certificate, undergraduate, graduate, and diploma programmes.
2. Leadership programmes that draw on research, writings and experience distinctive of UWI and the Caribbean.
3. Non-credit programmes of continuing education and professional updating.
4. Distance education programmes for certain categories of students undertaking sixth form or Preliminary courses.

It is not for us to set out priorities for development. Some are, however, already obvious and we would expect the University to identify others through surveys that would indicate the likely demand for particular programmes and its ability to meet them through distance modes. In what follows we make some suggestions based on our discussions.

(1) Degree and Other Programmes

The Certificate in Business Administration, the Certificate in Public Administration, the Certificates in Education, and the courses for Year 1 Social Science are clear candidates for development and delivery for distance learning. Decisions to open up degrees through distance teaching should, however, be made for the degree as a whole. The first courses to be developed would be the ones for Year 1. But by making Year 1 subjects of a degree available for off-campus study, the University will raise expectations that by no means all distance students will be able to meet through later study on a University campus. It will be necessary to plan for the degree as a whole and thus in terms of programmes of study through distance education. It will also be necessary to decide which of the degree programmes leading on from Year 1 Social Science and, within these, which subjects should be selected for conversion to distance modes. Given the existing demand for the certificates in business and public administration, there is a strong case for developing B.Sc. programmes in management studies and accountancy for off-campus students. Summer schools and regular weekend workshops are commonly included in the requirements of other universities for second and third year courses for bachelor degrees.

Given the needs of the region for people with advanced qualifications in science subjects, the University must find ways of combining distance teaching with face-to-face teaching and practical work in laboratories and in this way open up routes to science degrees for off-campus students. A policy of development which included Preliminary courses in mathematics and science, and Year 1 science courses, and was undertaken in cooperation with tertiary level institutions for the use of laboratories and local tutorial support, would add significantly to the number of students in the region with the background required for further study in science programmes. Scholarships which enabled students to study on a University campus on the successful completion of Year 1 Science would be an important policy

element. Examples of successful distance education programmes in science subjects are now available, and the University would no doubt want to develop its own in association with a University in broadly comparable circumstances that is already teaching science courses at a distance.

Year 1 courses in law are taught through the Challenge Programme, and there may be a latent demand for the teaching of some subjects in the later years of the degree programme through distance modes. And because of the importance of the tourism and hospitality industries to the countries of the region there is a case to be considered for adding a distance component (perhaps a diploma for those already in the industry) to the teaching of the Centre for Hotel and Tourism Management. A similar need may well exist for programmes of study for journalists, whether they are working for newspapers and magazines or in radio or television. We also heard from school principals of the need they have for training for teacher librarians in the organisation and management of school libraries; and from Resident Tutors in their need for suitable training for library assistants. (The Department of Library Sciences has prepared content materials under both of these heads that is awaiting conversion into a suitable distance education mode).

(2) Leadership Programmes

The discussions we have had about advanced programmes of study have also focused on what we are calling leadership courses that draw on research, writings, and experience distinctive to UWI and the Caribbean. In some countries of the Commonwealth Caribbean - Bahamas and Belize for example - numbers of secondary school leavers go to North American colleges for their undergraduate studies, and some of them return to their home country to practise their profession. When, later, they think about further serious study, UWI becomes an option for them in ways it may not have been when they were applying for college admissions. What they then look for in graduate and other advanced courses offered through UWI is a Caribbean content and ambience they would not expect to find in courses offered by North American universities. Part of the attractiveness of UWI to such men and women will thus be its ability to teach courses that reflect the Caribbean and are rooted in its experience.

The same can be said of programmes of study that could be developed in

Caribbean studies, women and development, and environmental studies, to mention only suggestions that have been put to us. In these and other fields, UWI, through the researches and writings of its teachers, is uniquely placed to assume a wider leadership role. Many, perhaps most, of the men and women who for professional or personal reasons wish to be better informed on such issues are scattered throughout the Caribbean and courses planned for delivery through distance modes would be well adapted to their circumstances. Given, too, the growing interest in regional studies in universities throughout the world, such programmes of study would have the potential to be in demand from the providers of distance education courses and from enrolments from other countries.

There is also a demand from graduates working in their professional capacity who need to keep themselves abreast of new knowledge or who, through changes in their responsibilities, need to broaden their expertise. Most if not all University faculties are already involved in various ways in responding to this demand, and UWIDITE has greatly added to their ability to reach professional colleagues in non-campus countries. We received requests for programmes of study leading to masters' degrees and we discussed plans for the development of such courses in the faculties of agriculture, engineering and education. A common feature of these requests and proposals is the importance attached to the inclusion of courses in management as well as in content directly relevant to a professional's subject discipline. Principals, senior teachers, and education officers working in various capacities in ministries of education have expressed their interest in having a master's course in education available to them through distance education modes. The faculties of agriculture and engineering are already developing similar courses for the professionals in their fields. Of particular importance is a growing demand for masters' programmes in the management of technology. The programmes we would envisage under this heading could be developed as sources of University revenue.

(3) Non-Credit Continuing and Professional Education

The University, particularly through the work of UWIDITE, has already gained a good deal of experience in the development and delivery of short term courses of continuing education and professional updating. Their significance in the lives of men and women is out of all proportion to our brief reference to them here. The demand for such programmes to be made accessible through distance modes is

certain to increase and diversify. In our discussions with deans we have heard accounts of courses conducted by teachers in all of the professional faculties and of proposals under consideration for future action. It is reasonable to expect that these courses will be financially self supporting and many should be sources of University revenue.

(4) Sixth Form/Preliminary Courses

Most of the University's efforts directed to the fourth of our proposed categories has so far been undertaken through face-to-face teaching or in the context of outreach and institutional relations rather than through distance education. But as UWI strengthens its ability to plan and produce printed materials which will become the backbone of its distance education activities, opportunities will be created for the use of distance modes in this field of activity as well.

The academic standards of students on admission to UWI and other tertiary level institutions in the Commonwealth Caribbean are uneven. Special courses are conducted in Preliminary science and mathematics and in the fundamentals of English, to prepare students for 100 level courses. The deficiencies in Caribbean education systems that produce this situation are not for the University alone to resolve, and indeed there are those who say it should not be a University responsibility at all. But it is clear to us that the University, working closely with other agencies, must have a continuing interest in developments aimed at raising the standards of students preparing to enrol in its courses.

We have discussed the wider question of the development of a Caribbean examination to replace the Cambridge Overseas with the Chairman of the Caribbean Examinations Council. A process of consultation is under way which is intended, in time, to work through the issues of curriculum and examination prescriptions implied by such a development. It is a large but necessary task which, to be successful, will call for a great deal of associated in-service training for secondary school teachers and for lecturers in tertiary level institutions who teach courses for A levels. Shortages of qualified teachers in English, mathematics, and science subjects, allied to the rapid turnover of teachers in several countries, will pose serious practical difficulties for any smooth transition to Caribbean curricula leading to a Caribbean sixth form examination.

There is a strong case to be made for incorporating distance modes in the processes of curriculum development, teacher education, and teacher support that will be entailed. The University would have an important contribution to make to the development of such distance learning materials in cooperation with the Caribbean Examinations Council, ministries of education, secondary teachers, and lecturers in other tertiary level institutions. Learning packages in English, mathematics and science subjects, prepared to exemplify interpretations to be given to sixth form and Preliminary requirements in these subjects would serve three related purposes. They would be written for students to work through and would substitute for face-to-face teaching in schools where there was a shortage of suitably qualified teachers. They would provide guidance for secondary teachers and would thus contribute to their understanding of the teaching requirements of the new syllabuses. They could be used as back-up materials for students in schools from which teachers left in the course of a year, leaving students without a teacher at a vital time in their secondary schooling. Science subjects are of course the most difficult to convert to distance courses. Successful development work has, however, been carried out at Memorial University, St. John's, Newfoundland and steps have already been taken to bring this to the notice of University and secondary teachers in Jamaica.

We assume that it would be the aim of everyone involved in the development of sixth form curricula in the Caribbean to reach the state where the University would no longer have to tie up part of its lecturers' teaching time and effort in Preliminary courses in English, mathematics and science. For the foreseeable future, however, the University will have to remain actively engaged in improving the general quality of students preparing to enter its degree programmes. A concerted effort will be needed to reach that state, distance education has the potential to make an important contribution to achieving it, and the University has a role to play with others in realising that potential.

UWI AT A WATERSHED

When the University decides to formalise its distance education activities by becoming a dual mode institution it will cross a watershed in its history. Getting into distance education on a proper basis is a decision with vastly greater implications than creating a new faculty. Once established, a faculty takes on a life of its own and its members have effective control of its academic development. But the essence of distance education in a dual mode University is that it is a new University function. The initiatives, decisions, and actions essential for its effective performance must take place in many different forums and locations within the University. For UWI, with three campuses and fourteen participating countries, and with its developing association with tertiary level institutions in several countries in its region, teaching through distance modes cannot avoid being a very complex operation.

There are, as well, two features of the University's experience so far that have given its distance education operations a character and a public perception that we have not encountered elsewhere. So far as we are aware, all other universities that have become dual mode institutions have done so by initiating correspondence courses. Their problems have centred on building up efficient systems for developing courses which were being delivered primarily through printed materials and they have accordingly given much attention to their ability to publish, distribute and store print-based materials and to support students studying them. Where they have added telecommunications to their technical capacity it has been at a later stage of policy development. At UWI the reverse has been the case. It has become involved in distance education by exploring the educational possibilities of telecommunications.

The second difference is in the kinds of courses identified for development through distance modes. Again, all other universities known to us have concentrated first on the conversion of 'credit' courses to delivery modes. Their teaching faculties - particularly arts, science, social science, law, and management - have had regular responsibilities to perform as part of the policy decision to become a dual mode institution. At UWI, on the other hand, much - perhaps most - of the impetus towards the development of distance education via UWIDITE has been associated with non-credit courses. Of the faculties, only Education and Social

Science have had a significant involvement. The main bulk of the courses fall under the heading of non-credit continuing education. In thinking through their policies for distance education, therefore, decision-makers in the University will need to keep it very much in mind that the future contribution of distance education at UWI will need to be much more comprehensive if it is to do what is expected of it in the University Development Plan. All faculties have contributions to make, whether to certificate, diploma, and undergraduate programmes, to post graduate courses, to continuing education in their specialised fields, or in support of the education systems from which the University enrols its students.

The University does, however, have one advantage over many established dual mode universities. Distance education in many universities has grown to become an important part of a University's teaching responsibilities, but not all universities have developed the policies and operating protocols necessary for its effective management and further development. Precisely because its efforts in distance education have yet to be given a firm organisational character, with several important components still to be designed and put in place, UWI has an opportunity to establish a comprehensive policy base for its future as a dual mode University. The policy functions we discuss below refer to a complex academic operation.

Going Dual Mode

It is implicit in our Terms of Reference that the University will by one means or another strengthen its capacity to teach programmes of distance education. We have, however, considered the possibility that distance education in the Commonwealth Caribbean for qualifications at University level might be provided by a separate University institution specialising only in teaching at a distance. This has been a policy response in a number of countries during the last 20 years. In countries with large populations, open universities have enabled a great many men and women to become graduates who would otherwise have been denied the opportunity and at costs significantly lower than those for comparable degree programmes in face-to-face universities. We have two reasons for rejecting such an approach for the Commonwealth Caribbean. In a dispersed region with a total population of about 5 million people an open university would never be able to achieve the economies of scale that would make it an efficient alternative to UWI.

No less important, in our view, the pursuit of distance education in isolation from face-to-face teaching at University level would be to the detriment of both. The effectiveness of both modes can be enhanced by being the teaching responsibility of the same University.

That still leaves open the question of how the University should organise itself as a dual mode University. We have considered the case for the establishment, as an integral part of the University, of a campus-based open college whose teaching responsibilities would be directed solely to the University's distance students. Such a college would appoint its own academic staff for the programmes of distance education it was making available for off-campus students and they would work in parallel with University teachers in the face-to-face faculties. Experience elsewhere warns against this approach and we do not think the University should adopt it. The arguments against an open college are essentially the same as those against an open university. Despite the valuable contribution that single-mode open colleges are making in many places, we are convinced that dual mode institutions are preferable where they can be established. By offering possibilities for cross fertilisation they have the potential to improve the quality of teaching in both modes through judicious mixtures of approaches that may have been pioneered in one mode or the other. Nor is there the potential demand to justify an investment in the teaching faculty that an open college for the English-speaking Caribbean would require. Both lines of reasoning thus lead to the conclusion that the preferred solution for the Commonwealth Caribbean is to develop and strengthen the work UWI is already doing for off-campus students.

We are in no doubt that the right policy for UWI as a dual mode University will be to conceive, organise, and manage its policies for distance education so that they are a regular part of the work of each teaching faculty assisted by a Centre for Distance Education, by the University Centres in the non-campus countries, and by part-time tutors of off-campus students. There are, of course, no perfect solutions to the conduct of distance education. All have their advantages and disadvantages. The advantages of the policy we recommend are that it acknowledges that registered off-campus students are a responsibility of the University as a whole; that its teachers and senior administrators will have in mind the requirements of off-campus as well as on-campus students whether they are personally responsible for teaching them or not; and it avoids the potential problem of the ghetto mentality that

universities have experienced whose teaching staff have been divided into those who teach on-campus and those who teach off-campus students. But the experience of other universities shows that there are disadvantages that can be associated with a dual mode approach, and the University will obviously want to avoid these if at all possible.

Becoming more comprehensively dual mode will change the character of the University. Like most universities, UWI was conceived, and during forty years has developed, as a University whose typical teaching relationships with students are face-to-face and take place on-campus. It is for that kind of teaching that its teachers have been recruited, and most of them will have had little if any direct experience of teaching University students at a distance. It is not far fetched to think of their teaching as a particular kind of teaching culture. The pressures and constraints that influence their work are all direct and immediate : teachers are timetabled to give lectures and tutorials; they are expected to be available to assist students who may need guidance on the content of a lecture or the requirements of an essay, assignment, or laboratory exercise; they have essays to mark, and the presence of their students on-campus will be a constant reminder that these must be marked and returned; and their students can take up with them personally any matter they may wish to discuss further once a piece of assigned work has been marked and returned.

The culture of teachers working in distance modes is altogether different. Effective distance teaching cannot avoid being highly organised. Lecturers who may well have become accustomed to doing things in their own time find that, as a member of a team for the development of a course or its delivery to distance students, they must work to previously agreed requirements and timetables. Their off-campus students will not come knocking on their doors to keep them up to the mark if they are falling behind. Instead they will be chivvied by a phone call from their programme co-ordinator or a fax from a resident tutor asking when they will have completed a particular task - the text of their contribution to a new course under development; a decision on a person whose qualifications are being vetted for the position of local tutor; notes for distribution in advance to support a forthcoming tele-tutorial; etc. Learning to work as an effective team member can be more difficult than many people imagine. At one level it has much to do with what lecturers think of as being their 'real work' and whether their distance students figure

as prominently in that regard as their on-campus students. At another important level it has much to do with the conditions under which lecturers are required to service the academic needs of their distance students; and we are in no doubt that workloads must be moderated so that teachers can give proper attention to all their teaching responsibilities, for off-campus as well as for on-campus students. And there can always be personal factors that even the best laid plans cannot always cope with.

We do not pretend, then, that the University will by organisation alone be able to avoid all the problems that other dual mode universities have found. But, as we have said earlier, UWI can profit from the mistakes others have made. The recommendations we make in later sections are intended to create a context of policy, management, and working relations that would enable distance education to develop on a sound basis at UWI.

But we would not wish to end this section on a mildly apprehensive note. The biggest potential benefit that a well managed commitment to distance education can bring to the University is an enhancement of the quality of its teaching - face-to-face teaching as well as distance teaching. It is a common experience of teachers who have converted the courses they teach into study materials for self-directed learning that they then modify the way they present their material to their face-to-face students. As the small girl put it in Graham Wallis's *The Art of Thought :* 'How can I know what I think till I see what I say?' Writing down ideas and presenting them in ways that readers can decode without the help of the personality of the speaker, the inflexions of voice, the pauses, the emphases and the repetitions of key words and phrases is a discipline in itself. With the cooperation of people who are skilled in the ways of repackaging speech and gesture as communicable print, many lecturers in dual mode universities have improved their ability to communicate orally as well as through print and associated media. The move to a dual mode University will heighten the interest teachers have in the teaching act itself.

We were therefore pleased to discover from the Decade Development Plan that the University intends to establish teaching development units on each campus. We would see these units becoming important forums where principles of distance teaching as well as of face-to-face teaching will be examined. More than that, we would see great benefit in planning the teacher development units in conjunction

with the production units that will be needed to print distance education materials. All three campuses will need to have such a production unit. Much of the equipment for producing distance education materials - study booklets, audio and video tapes, photographs - will be what will also be needed to support the work of teacher development units. There will also be much common ground in the professional development activities associated with each initiative.

There are, finally, some quite direct benefits that can be expected to accrue for UWI as a dual mode University. Some of the texts it teaches which have been written to support distance education courses are already in demand by campus students in the same courses. We would see books and study guides written by UWI staff being of particular use to campus students in future, and, among other things, we would see their sale through the University bookshops as a growing source of income. Such a development also has interesting implications for the way campus courses are taught: it might lead to fewer lectures and more tutorials based on course materials written specifically to promote discussion. No less important is the possibility of including segments of distance learning materials as an integral part of courses planned for campus students. The specialist expertise of teachers from other campuses could in this way be included in the programmes of study of campus students.

Some of the implications of post-graduate study also need to be thought through. Discussions of distance education usually concentrate on undergraduate teaching and learning and on differences between campus teaching and distance teaching. But at the post-graduate level the similarities can be more important than the differences. Post-graduate students are expected to organise and manage their own learning. Their research supervisors may be from another campus, or a University in another country, and their normal mode of communication may be by letter, fax or electronic mail. Increasingly, too, University teachers the world over are pursuing their researches in the same way. So in thinking about the way it should teach its undergraduate students on-campus, the University should be attentive to the circumstances in which they may well pursue their further studies once they have graduated. In the course of their careers they will in all probability become distance students for at least some of their further continuing education, and it would be advantageous to be inducted into its possibilities and requirements while they are undergraduates.

Implications For University Outreach

The University is developing its working relationships with teachers' colleges and other tertiary level institutions in its region. Policies are already in place which provide guidelines for cooperation between UWI and tertiary level institutions which are planning to teach Year 1 degree courses. This is an important development in the Eastern Caribbean, and it could be greatly facilitated when the University upgrades its distance education services.

Improved computer and teleconferencing arrangements will make for closer, more effective communication among the many people who must keep in touch with others when the teaching for University qualifications is dispersed across several institutions. One example, illustrates the point. Initiatives that have been taken by the Office of University Services, Cave Hill, in association with the Organisation of East Caribbean States (OECS) are based on team approaches which require lecturers from Cave Hill and lecturers from teachers' colleges in OECS countries to plan and produce teaching materials that will then be used by untrained secondary teachers in those countries to upgrade their knowledge of science. UWIDITE is used as an important means of communication among the members of the team. The packages of learning materials, when completed and in use, will be dealt with by local tutors. It will obviously be important for the effectiveness of their tutoring that these tutors are able to be in regular communication with a lecturer, whether in a teachers' college or at Cave Hill, who can guide them, answer their questions, and generally keep them abreast of developments in their field. If they all had access to the same computer network and to teleconferencing arrangements that enabled them to talk regularly to each other, the potential for enhanced colleague relationships would be very great indeed.

From the experience members of the University have gained through UWIDITE, the arguments for improved, more flexible teleconferencing arrangements are self evident. What may not be so widely appreciated is the role to be played by print-based learning materials that will be the main carrier of distance education programmes. The potential benefits for the Caribbean are much greater than for many other countries using distance education approaches. Certainly in first world countries, distance education materials are valued primarily for what they

offer distance education students, the professional benefits teachers gain from writing them, and the incidental benefits that may come from their publication, their adoption as texts to be used in the courses of other universities, and their use by members of the reading public. To these is to be added one other possible value. Some courses that have been prepared for use by distance students become exemplars in their respective academic fields. They bring new interpretations to an existing course of study, or they bring new knowledge to the fore, or they bring entirely new subjects of study into being.

These innovative possibilities have an importance for the Caribbean far beyond the usual relationships between University teachers and their distance students. But the availability of study materials that have been prepared for distance students living in Caribbean countries will serve other important purposes as well. They will become a valued resource by local tutors and by lecturers in tertiary level institutions and will thus have an in-service training function. The processes by which existing courses are regularly revised and new ones are planned and prepared will involve lecturers in tertiary level institutions as well as University teachers, providing a stimulus for their professional development. The availability of course materials will be important to tertiary level institutions that may have difficulty in maintaining continuity of appropriately qualified staff to teach all the Year 1 courses they are offering their students.

That raises the question of how 'open' the University's distance education offerings should be. There are several stubborn reasons why constraints will have to be acknowledged as an unavoidable part of University policy. The off-campus populations in the Caribbean are very small in terms of distance education operations and they will be dispersed over many centres and institutions. The number of courses to be developed, delivered, and revised for each programme will soon build up. The availability of suitably qualified local tutors will limit the availability of some courses in some countries. Trade-offs will have to be made between the desire to increase educational opportunity, the financial and human resources that can be devoted to distance education, and the ever-present question of educational standards. In all its activities as a dual mode institution the University should place great emphasis on the quality of its offerings. The important thing will be to establish distance education on a sound basis. This must mean that priorities for the development of distance education programmes will have to be struck and

there will be a continuing demand for additional courses that it will not at first be able to satisfy. We see, furthermore, no way of avoiding requirements for distance (as well as campus) students to pay tuition fees in addition to the contributions that member governments will make to the University's recurrent finances.

Some people we talked to doubt whether the University's policy for the enrolment of mature students is applied consistently to off-campus applicants. We would assume that the University would administer the same rules for off-campus as for campus students.

TERTIARY LEVEL INSTITUTIONS

Our references to the tertiary level institutions have so far been in terms of the University's responsibilities. Considered in their own right, however, and in the context of policies for national development, the TLI's have very important roles to play. The teaching they do themselves, or in cooperation with University teachers, for UWI degrees is only part of their wider responsibilities. They award their own certificates and diplomas and, at the Jamaica College of Arts, Science and Technology, degrees. Within their countries they have their own outreach programmes, and some are also initiating developments in continuing education that include distance education and make use of communications technology.

The TLI's also have aspirations for their own institutional development that must be considered in their future relationship with UWI. The Association of Caribbean Tertiary Level Institutions (ACTI) is the forum where these matters can most usefully be worked through. Through regular consultation among heads of institutions, understandings can be reached and recommended to their respective governing bodies. Much of the ground for institutional cooperation for courses to be taught in whole or part by TLI's and awarded by the University has already been traversed on a case by case basis. ACTI is tackling the intrinsically difficult issues of course recognition and credit transfer among Caribbean TLI's. This should produce mutually agreed principles in relation to which administrative decisions can be made.

Where teaching is done in one institution for qualifications to be awarded and vouchsafed by another, there is inevitably much scope for misunderstanding, tension, and criticism. Where the awarding institution is a University and the qualification a degree, questions of academic standards have to be faced up to. It is very important that policy decisions on such standards are approached cooperatively between the teachers in the TLI's and the University who will be responsible for teaching particular programmes. Protocols of action can then be written down and publicised for the information of anyone who has - or who may come to have - an interest in what is being done. Irrespective of where the programmes are to be taught, lecturers and their students must be clear about their academic objectives and their work must be supported by satisfactory library resources and laboratories.

The enhanced telecommunications network we propose (pp.73-75) will provide a means by which problems of consultation and communication which have loomed large in the past can be overcome. It will be important for the TLI's to be kept closely informed about these developments so that, in developing their own policies for electronic communication, they can both have easy access to it and can develop their own national networks in harmony with it.

It can be expected, too, that some lecturers in the national institutions will want to improve their academic qualifications and will enrol for higher degrees. This will further enhance colleague relationships, and will also open possibilities for research done as part of such degrees and for other purposes to have its focus in the territories where they live and work.

From our various discussions we would expect tertiary level institutions to confine their teaching for University awards to certificate courses, Year 1 courses, and, for the teaching profession, courses for serving teachers. It is possible that, by the end of the decade, the University will have produced Year 1 courses in social science, law, science, and some arts and general subjects. Decisions to develop and make such courses available for study by distance students will have important implications for the University's policies for outreach and institutional relations. The students who will be registered either as distance students or as students enrolled in tertiary level institutions will be in various circumstances. Many will be enrolled through the University Centres and may receive tutorial assistance from that source. Others will be enrolled as full time students in a tertiary level institution, and they may or may not be receiving face-to-face instruction in some or all of the subjects for which they are registered by the University. Others may well be studying subjects not yet taught, or currently not available, in their tertiary level institution. Others again will be part-time or evening students in a tertiary level institution, and subject to the same range of possibilities.

The circumstances of these students after they have completed a Year 1 course and are qualified to proceed to a Year 2 will also raise important policy questions for the University. Some, with scholarship support, will proceed to a University campus as full time students. Others - and we expect them to be an increasing number - will remain in non-campus countries. Whether for family or work-related reasons, or because of the costs and the length of time involved, they

will not become internal students of the University. But many will want to be able to proceed with degree studies.

To cater to the needs of such off-campus students the University will need to plan and develop programmes of undergraduate studies for distance students. The planning unit will need to be the degree, not merely subjects that can be studied at a distance for Year 1. We would not expect all the subject options for a degree taught by distance modes to be made available to distance students. But we would expect, as a matter of policy and planning, the University to convert a sufficient range of Year 2 and Year 3 subjects into distance courses to enable off-campus students to complete a degree through distance modes of teaching and learning. In saying this we are keeping in mind the possibilities that summer schools offer for short but significant periods of face-to-face study for distance students. We are aware, too, that, initially at least, the annual demand for tuition at a distance in subjects beyond Year 1 will be small and scattered. We would see some Year 2 and Year 3 subjects being made available on a regular basis but not necessarily every year for particular subjects.

Some complicated funding issues will also have to be teased out. It is our understanding that the University does not include distance education students in its calculations of the annual student load for which it must be funded. We later propose that it do so.

As the University adds to the programmes that can be studied by distance students and as, within these programmes, the number of courses of study increases, so, too, will the demand for distance education increase in non-campus countries, in parts of Jamaica and Trinidad, and among students who may now study part-time. Increasingly, too, some of these students will have dual-enrolments: they will be registered as an off-campus student by UWI and by a TLI for a course of study based, in whole or in part, on study materials that have been developed for distance learning with the support of a local tutor. Some apportionment of the costs relating to the contribution each institution makes to the delivery system will need to be made.

POLICY AND PRIORITIES

The University's distance education activities will need to be guided by a policy board made up of the senior-decision makers most closely associated with its development and efficient management. We envisage a Distance Education Management Board as the committee that will set the policy guidelines within which everyone responsible for distance education will carry out their separate responsibility in the wider University context within which they will all be working. The policy committee would :

- Settle and as necessary review the organisational arrangements for the development and delivery of distance education as an efficient function of the University Centre;
- Make planning decisions on new programmes of distance education to be developed for delivery in each funding triennium; identify the costs of development and later delivery, including setting up costs; and recommend appropriate levels of funding for the consideration of the University Finance and General Purposes Committee;
- Consider regular reports from the Director of Distance Education, and, as relevant, from the Office of Outreach and Institutional Relations, the Office of University Services, the Office of Academic Affairs, the Office of Planning and Programming, the Office of Science and Technology, and the Office for Women's Affairs, and decide appropriate courses of action.

We would see the Board being chaired by the Vice-Chancellor and comprising the three campus Principals, relevant Pro Vice-Chancellors, the Director of Distance Education, the University Registrar, the University Bursar. Its essential task would be to ensure that, in a dual mode University, authorised programmes of activity in distance education receive an appropriate share of UWI's academic and financial resources, accommodation, and supporting services. It would set priorities for action by the Distance Learning Centre and by the various faculties teaching programmes by distance modes and would approve the operating protocols for the allocation of

teaching resources and budgetary provision for distance education purposes. We would see the Board doing its work through teleconferences (which are regularly used by the Vice-Chancellor and his management team).

The Board we envisage would include the members of the Vice-Chancellor's management team whose portfolio responsibilities have a direct bearing on the management of distance education. Papers prepared for their consideration should be the subject of prior consultation between the Director of Distance Learning and relevant deans, heads of department and lecturers. The University may, however, wish to consider including deans for agenda items concerning particular faculties.

Throughout the Commonwealth Caribbean there is a large and growing interest in what the University is doing and plans to do in distance education. Ways will need to be found for keeping governments, tertiary level institutions, and various professional and community organisations informed and for consulting their views on particular proposals. The Association of Caribbean Tertiary Institutions will no doubt be an important forum for this and other links may need to be formed particularly with governments, business communities and voluntary organisations. Once the University's electronic network is upgraded and extended it will be capable of filing all policy decisions and any member of the network will thus have access to accurate, up to date information about UWI's contribution to distance education.

We are assuming that a University budget for distance education will be constrained - that at any time there will be more proposals for the expansion of existing programmes and the development of new ones than the University will be able to fund. Priorities will have to be struck and it would be in this committee that they would be determined. In striking its priorities, the Board would need to have available to it comprehensive estimates of the recurrent as well as the development costs of new proposals. In a later section we discuss the distance education activities under four headings: course development, course delivery, student support and evaluation. Each has requirements of expertise, money, accommodation and equipment that must be identified when priorities are determined if proper provision is to be made for their development and later delivery.

From the experience of other dual mode universities these cost items can now be identified readily enough. The most important are :

For Course development

- Faculty staff costs
- Distance Education Centre staff costs
- acquiring copies of published course materials
- copyrights
- media (staff and materials)
- printing costs/desk top publishing equipment costs
- appropriate space
- supplies for office
- laboratory materials
- travel costs to support inter campus course teams

Course delivery

- mail/shipping costs
- telecommunications costs (data transmission, teleconferencing, computer linkages)
- appropriate space

Student support

- telecommunications costs (teleconference tutorials)
- Faculty staff costs: marking, assessing, advising
- tutor costs
- University Centres (operating and equipment costs)
- appropriate space at University Centres
- supplies;
- library materials; student computers, lab assistants, consumable materials

Evaluation

- staff
- equipment

Telecommunications

- equipment
- software upgrading
- line changes
- technical support (all Centres)
- Fax and E-mail installations

University Centres

- space
- operating funds to maintain Centres
- equipment
- student resources (library, computers)
- maintenance of teleconferencing system (technician services)

As functions of the University Centre, all identifiable costs of the University's distance education programmes would be funded from the Centre budget. Spending responsibilities would be devolved to the Distance Learning Centre, the faculties undertaking approved programmes, and the University Centres for the expenditure items associated with their responsibilities. We assume that, through the Office of Planning and Programming, the Distance Education Management Board would have procedures for the systematic monitoring of all University programmes developed and taught through distance education.

FUNDING IMPLICATIONS

The University's responsibilities for distance education are a charge on the Centre budget and we think they should remain that way. At present the operating costs of UWIDITE are charged to that budget but in time the amount of money and the number of expenditure items directly associated with distance education will increase.

The first task will be to devise a policy for recording the volume of distance education enrolments in each teaching programme and, in the aggregate, for the University as a whole and in relation to full and part-time campus students. Then it will be necessary to decide (no doubt with guidance from the UGC) how much income each distance student, counted in full time equivalents, should generate towards the annual operating budget. We emphasise the word decide. There are no standard formulae that can be used to determine how funding estimates should be apportioned between campus and non-campus students. The University will be able to take guidance from other dual mode universities but in the end it will have to make its own decision. The cooperative teaching arrangements it is developing with various TLI's introduce a local factor that few, if any other dual mode universities, have to consider.

Determining how the University's income is calculated is one side of the funding coin: deciding how it should be divided between teaching on campuses and at a distance is the other. It raises equally difficult problems. For UWI, virtually all of whose operating budget is now spent in support of on-campus, face-to-face teaching, the first and obvious question is whether Peter is to be robbed to pay Paul. There will also be start-up costs that will have to be spent before distance education programmes are advertised for enrolments. (Figure 3, p.63) This simply means that, from whatever sources, the University will have to invest money in the development of distance education programmes if it is to generate a stream of off-campus enrolments who will in time justify a proportion of its annual operating budgets.

As we discuss below, distance education can, for spending purposes, be divided into four components: course development and revision; course delivery; student support; and evaluation. The best solution for the University during the

initial phase when it was tooling up for distance education, would be to have access to earmarked development grants that were not in competition with its annual operating budget. These could come from special grants identified by the UGC and funded by participating governments, or from development assistance agencies, or from a mixture of both.

However it is put together, and whatever its size, the University will need to have a budget in relation to which it can plan and spend money on the establishment and running of its Distance Learning Centre (with a presence in all three campuses) and the development of its first programmes of distance education. This we refer to as the development budget. Ideally, it should be thought of as part of a single budget for distance education that also includes the costs of delivering distance education, supporting students, and evaluating the University's policies for distance education. Once they have been developed and are being delivered, distance education programmes produce downstream costs in the form of additional workloads for University teachers and tutors, and other supporting costs. The more programmes that are developed the greater the continuing impact on the University as a whole. As far as it is possible to do so, these impacts should be foreseen, planned for, and budgeted for. The Distance Education Management Board in any given year should authorise the development of x courses (being components of particular programmes of study) at a planned cost of -$y (subdivided under various heads of expenditure), to come on stream for teaching purposes in a designated year with an estimated demand for which money is to be added in the appropriate teaching budgets to take account of increased enrolments. In other words, the pace of development should be determined by the increased demand for University teaching it is expected to create.

Implicit in this approach would be an analysis of the number of students who, given available funding, should be admitted annually to particular programmes or courses. It would be the responsibility of the Director, Distance Learning Centre, in consultation with the University deans, campus deans, heads of department, and the lecturers involved in the programmes of study identified for development for distance education to work through a checklist such as the one on pp.47-48 and submit a detailed budget for each proposal recommended to the Distance Education Management Board for priority consideration. Once the decision was made to develop and deliver particular courses, spending authorities under appropriate forms

of accountability would be assigned to the various cost centres for each item of expenditure.

Each course and programme budget would thus be a mixture of expenditure items (e.g. printing costs) and claims on the time of University teachers and specialists in the Distance Learning Centre, and other members of course development teams. Production costs can be identified. The salary costs of instructional programme officers can also be assessed: the number of courses to be developed or revised in any year will be related to the number that the corps of instructional programme officers (however many these are) can be expected to complete during that year.

How to handle the claims on University teachers raises different questions. On p.80, in our discussion of the terms and conditions of employment, we propose that academic responsibilities for distance education be regarded as a normal feature of University life. If the University takes that course it will have to find ways of moderating the teaching loads of teachers who may well differ over quite a range in their responsibilities for distance education. The aim would be to assure a reasonably equitable distribution of teaching responsibilities regardless of the mode(s) of teaching each member of staff is engaged in. It has to be said that it is easier to advocate such an approach than it is to point to solutions that all members of a University consider to be reasonably equitable. The experience of other dual mode Universities can however be consulted: it is an issue that all who regard responsibilities for distance education as a regular feature of teaching life must wrestle with.

Of the two aspects of distance education - developing courses and delivering them - the first is easier to deal with than the second. Budgets can include a sum to recompense for the amount of teaching time that will be unavailable to the department while particular lecturers are working as a member of a course development team. The department would charge the cost of a replacement lecturer to that budget. Once, however, a course comes on stream and is available for enrolment the question is whether limitations are to be placed on the numbers admitted to it. Consistent with the budgetary approach we propose (and also with our concern with the quality of teaching to be done by distance modes) we think that the number of students admitted to particular courses should be related to the

amount of money in the distance education budget to cover the costs of delivery.

We are equally clear about the importance of developing the University's policies for distance education in a context of evaluation, research and development. We discuss this further on pp.69-72. Here we note that, as a matter of funding policy, regular provision should be made for this.

Costs

Our terms of reference ask us to 'have regard ... to the capital and recurring costs of any developments in [the University's] policies for distance education that might be proposed'. It will have become clear from what we have said above, however, that our concern in this appraisal has been more with what could be termed the algebra than the arithmetic of costs. Until the University has made policy decisions on the various issues we have raised, any attempt to estimate costs would be conjectural. For example, we propose (pp.88-89) a joint development of teacher development units and distance learning centres on the three campuses because (among other advantages) we see cost efficiencies in the shared use of production facilities and some support staff. Only if the proposal is thought to be viable will it be possible to assign costs to the distance education components on that basis and not some other. Our proposal for telecommunications technology is of the same kind. (pp.73-75) We see distance education as a main user of a University telecommunications network, and the capital costs would be dedicated to the enhancement of the University's management and to cooperation among teachers working on different campuses as well as to distance education.

It will be possible to pick out with greater precision the annual operating costs of the University's programmes of distance education. As a corollary we would expect the costs of teaching campus students to be recorded as part of a larger interest in the cost to the University of its various teaching responsibilities. If this is to be done it will be necessary to have computer access to detailed information from student records as well as the University's financial inputs to its teaching programmes. The costs of distance education should be thought of in contexts that include benefits and outcomes, and this links with the wider interest which we think the University should have in evaluation, research and development associated with its various responsibilities. (pp.69-72) In our discussion of the responsibilities of the Distance Learning Centre we have suggested a staffing establishment of about a

dozen academic, technical and administrative appointments, not counting their clerical support. Not all of these salary costs will require additional recurring expenditure because the present staffing entitlement of UWIDITE would be included in the Centre's staffing establishment as a financial offset. To the cost of this staffing establishment would need to be added the salary costs of developing each new course of distance education and teaching it, and that would provide the main information for estimating recurring salary costs.

THE MANAGEMENT CHAIN

We see the Director of the Distance Learning Centre as the focal point of the University's overall management of all its teaching activities under the distance mode. He or she will obviously not be personally responsible for the detailed administration of what, even now, is a diverse collection of enterprises. The person appointed to the position should be the person to whom others in the University will turn for informed guidance when they are planning, designing or reviewing distance education programmes in particular faculties. To carry out that responsibility effectively the Director should hold a professorial appointment with a status equivalent to the level of a dean and will need to be kept fully informed by deans, heads of departments and lecturers who are nurturing new proposals. It would be the Director's task to ensure that, wherever possible, proposals being prepared for consideration by the University's Distance Education Management Board are pedagogically sound, appropriate for the Caribbean, and realistic in their assessments of costs and relevant expertise. Much of the Director's time will thus be taken up in discussion with his or her academic colleagues about continuing responsibilities and projected developments in the University's distance education activities.

The Director will also be the focal point of a complex operation, by no means all of which can be brought under his or her direct, personal control. Distance education depends on close, effective team work. Beyond the people in the Distance Learning Centre directly responsible to the Director, there will be University teachers who will be writing course materials, preparing course outlines, revising courses, vetting the credentials of locally appointed tutors, perhaps conducting regular teleconferences for distance students, and possibly marking their assignments; Resident Tutors in non-campus countries and off-campus centres who administer local distance education programmes; and local tutors who conduct regular tutorials, supervise practical requirements, and mark assignments. So the Director will have a close working relationship with Resident Tutors in the University Centres as well as with teachers on the University campuses. (Figure 1, p.55)

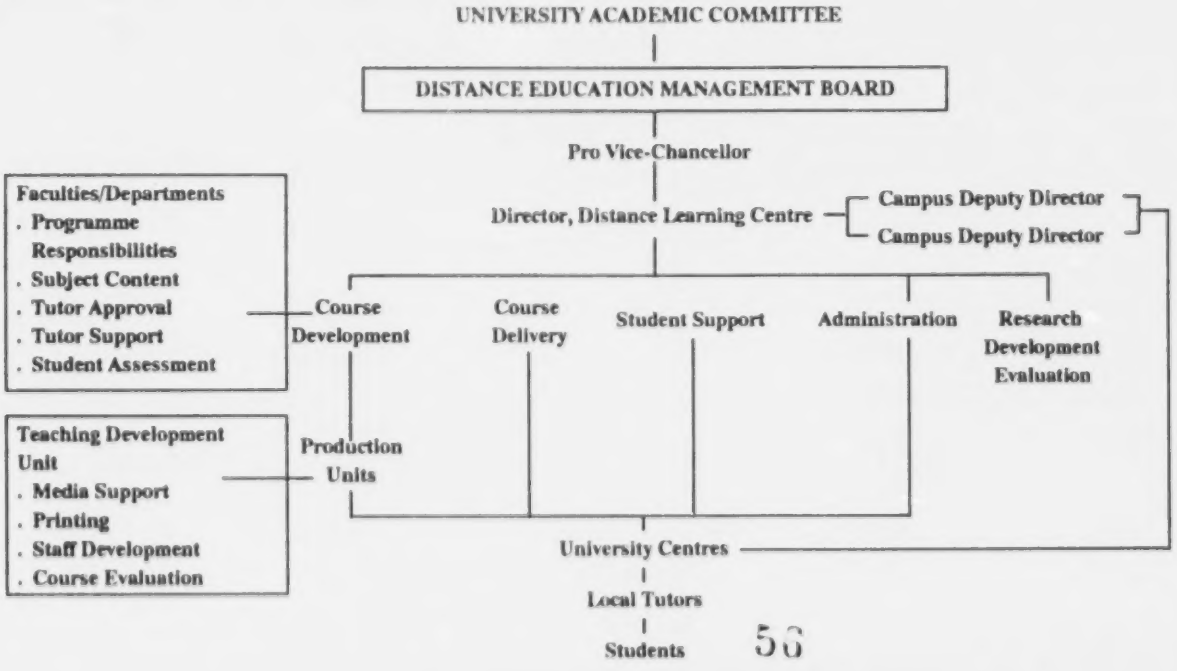
As we see it, Resident Tutors should be in a formal line of responsibility to the

Director for the distance education activities conducted in their territory. We have come to think of Resident Tutors as resident directors because it seems to us that more accurately expresses the relationship envisaged for them in the Development Plan. It also underlines the directive responsibilities they will bear for the University in each territory as it expands and diversifies its distance education operations.

This raises another issue relating both to the resident tutors and to the Pro Vice-Chancellor, Outreach and Institutional Relations. As we have noted earlier, distance education at UWI has developed through a very close relationship with continuing education and is at present administered as one of the responsibilities of the office of Outreach and Institutional Relations. The responsibilities of that office are listed as:

- The School of Continuing Studies and the offices of Resident Tutors and Staff Tutors
- The offices of University Services
- Expanding links with other tertiary level institutions
- Development of Summer School Programmes
- The development of improved programmes to provide expanded use of the UWIDITE system and the mechanisms of distance learning

FIGURE 1 : PROPOSED MANAGEMENT OF DISTANCE EDUCATION



Given the developments we are envisaging we think that the last of these responsibilities should be written differently. A remit along the following lines would reflect more accurately the University-wide nature of distance education now being contemplated : 'The development and delivery of the University's distance learning programmes'.

There is another matter that we must raise here. In formal terms, responsibilities for distance learning come under the responsibilities assigned to the Pro Vice-Chancellor Outreach and Institutional Relations. In most of the conversations we had, however, the identification is made not with these responsibilities but with him in his capacity as Professor and Director of Continuing Studies. The fact that the people who represent the University in the non-campus countries are known as resident tutors of the School of Continuing Studies reinforces what we believe to be a wrong impression of how UWI as a dual mode University should perceive itself. It is not clear to us how continuing studies is defined and understood in the University. In the past it has had association with non credit courses. Now, it seems to take an operational meaning from the men and women who will be the recipients of the University's various - and increasing - initiatives that fall under the heading of continuing studies. But the distance education programmes we are recommending will fall increasingly to the responsibility of the faculties for their development and delivery. They will result in programmes of study for credit - that is, for certificates, diplomas and degrees of the University. For that to happen, the University will have to become actively involved through the various academic committees that approve new teaching courses and monitor academic standards. The School of Continuing Studies will thus become one among other interests in the University with a direct involvement in policies for the development of distance education and a direct interest in its management.

If the University were to think of its responsibilities in relation to those of its teachers who will primarily be writing its distance education programmes, superintending its operations, and examining distance education students, it might wish to relate it to the Vice-Chancellor's office through the Pro Vice-Chancellor Academic Affairs. If, however, the responsibility were to continue to be thought of primarily in terms of the recipients of distance education programmes, then the relationship to the Vice-Chancellor could remain with the office of Outreach and

Institutional Relations. In that case, we think the link should be through the Pro Vice-Chancellor in respect of his outreach and institutional relations functions and not as an administrative responsibility of the School of Continuing Studies. Put another way, we would see Pro Vice-Chancellor Nettleford discharging his responsibility for the Vice-Chancellor not as Professor of Continuing Studies but as Pro Vice-Chancellor Outreach and Institutional Relations. The Distance Learning Centre would not be part of the School of Continuing Studies but stand separate from it, and its Director would have a direct line of responsibility to the Pro Vice-Chancellor.

Resident Tutors also have formal responsibilities towards the Office of University Services. In practice this arises now only at Cave Hill in relation to the University centres in the Eastern Caribbean countries served by the OUS (Cave Hill). That office is also strengthening working relations with the resident tutors. As time goes on, resident tutors will find themselves dealing with an increasing number of initiatives, some of them relating to distance education and emanating from the Distance Learning Centre, others relating to the outreach and development responsibilities of the Office of University Services, Cave Hill. We are not suggesting that these will be in conflict, but we do think it important that the roles, responsibilities and reporting relationships of resident tutors and the Offices of University Services are clearly stated in the University's policies for distance education. The fact that resident tutors are being drawn into wider development roles is another reason for reconsidering the title they work under.

The final point to be raised in this discussion of chains of command refers to the relationships of the Director of the Distance Learning Centre to the telecommunications system (or systems) the University will develop and manage to facilitate its distance education activities. At present the management of UWIDITE is an integral responsibility of those directly associated with it, although the responsibilities are divided between technical and programming aspects. In a later section we will propose that the University conceive its telecommunications policy for the future not in relation to UWIDITE but to its overall requirements for servicing distance education in a dual mode University. We will also propose that its telecommunications policy be developed in relation to the fibre optic backbone now being planned for the computerisation of the three campuses. Under such a development the Director of the Distance Learning Centre and the teachers involved

in distance education programmes would be users of comprehensive University computer/telecommunications services. The Director of the Distance Learning Centre will need to have a technical manager who would (among other responsibilities) be responsible for identifying telecommunication needs for the University as they relate to distance education. She or he would ensure that distance education teachers and distance students had access to appropriate telecommunication services as and when needed. How far such services will need to be dedicated to the exclusive use of the Distance Learning Centre is, however, something that needs further investigation. We think it likely that those responsible for the delivery of distance education programmes will be more interested in taking services from a University computer/telecommunications service than in running their own. We assume, too, that, within policy guidelines set by the Distance Education Management Board, telecommunications services will be managed as a decentralised operation. One of the tasks of the technical manager will be to ensure that, regardless of their campus, the teachers conducting distance education courses have access to the telecommunications support they need as and where they require it.

A DISTANCE EDUCATION SYSTEM

The essence of our proposal is that responsibility for the academic content of distance education programmes will reside in the University teachers who are also responsible for on-campus teaching. The practical question then becomes how to convert the knowledge that resides in the University's academic staff into forms that may be carried to the distant student, and how to support students' efforts to work with the learning materials to generate their own understandings and knowledge.

We have asked ourselves what teachers in the faculties should expect of their colleagues in the Distance Learning Centre. For most, their previous experience will have been confined to classroom teaching. As classroom teachers they have the benefit of immediate and continuing feedback during every episode of live teaching, and they can change their teaching behaviour in ways they might think necessary to achieve the kind of response they are seeking. But as distance teachers they will have to construct contexts for learning for students whose chief - or only - 'teaching' contact will be a package of self-instructional materials. They must put their creative effort into the way they conceive a course of study and orchestrate the various media and other supporting services they can call upon when designing, developing and packaging it. They must create a conceptual structure around which various teaching materials will be assembled.

It is unrealistic to expect teachers writing their first distance education course to have the knowledge and experience to do it well without further assistance. The content to be taught and the understandings the course writer will want his or her students to grasp must be thought through in a new pedagogical setting. They should expect to find it through their working association with men and women specialists usually referred to as instructional designers, or programme officers. They are the people in the University who should have the responsibility of keeping abreast of developments in the pedagogy of distance education. From their knowledge of the resources available, and of the ways other course writers have used them, they will have advice to offer as to how a course might be planned and organised, what is reasonable to include in each assignment, and many other matters that will relate to the course that is finally produced. The role of programme officers must, as we see it, be rooted in this knowledge.

In the course of time we would expect a good deal of this knowledge to become second nature to teachers in a dual-mode University. Certainly we would expect to find it well professed in the faculty of education where there will also be a great deal of practical knowledge about teaching and learning in the Caribbean and elsewhere. But wherever else it might be found in the University, it ought to be found in its Distance Learning Centre. If it is not there the University will be cut off from sources of knowledge essential to the effective performance of one of its two main teaching responsibilities. The bearers of the knowledge are variously called instructional designers, programme advisers, or programme officers. We refer to them as programme officers.

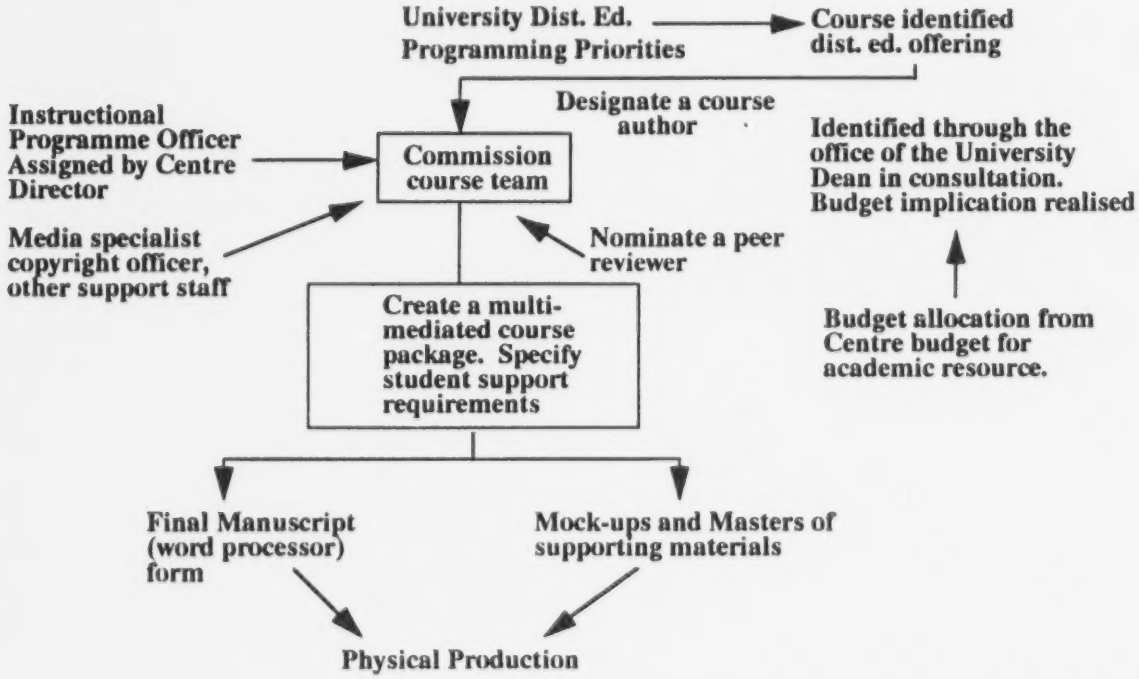
At the operational level, the staff of the Distance Learning Centre would be responsible for working with University lecturers to convert the knowledge of the academic staff into effective print-based learning materials, to produce these materials and distribute them to students and to support learning processes as students work through them. Much of this work will be at the administrative level and will require excellent management by staff of the Distance Learning Centre. But there is a larger, essential service that the Centre should provide.: skill and expertise in creating effective distance education materials. In this role the Director and other members of his/her staff will have a more collegial relationship with course lecturers. The content expertise of a lecturer will be joined with the teaching expertise of a programme officer in the Centre to produce learning materials of better quality than would result if subject lecturers were alone responsible for converting their knowledge to study materials for individual study. In addition to working with lecturers, the Centre, through the expertise of its programme officers, should have a major responsibility in staff development to help raise the proficiency and competence of other members of the University's staff responsible for developing effective instructional materials.

Staffing the Distance Learning Centre appropriately will be a challenge for the University. The men and women who would work effectively in this context must have strong managerial skills, excellent interpersonal skills, and a facility for designing effective distance learning materials. These persons are difficult to find since this blend of skills does not necessarily accrue to a person as a result of graduating from related specialised programmes of study. A number of dual mode

universities have built up a good deal of experience in the requirements of this type of position and of the career paths that can be opened to the men and women recruited to them. The Commonwealth of Learning would be able to arrange for the University to tap into this experience when it is planning and setting up its Distance Learning Centre. The Director should also be well versed in the special circumstances of third world countries, and direct knowledge of the Caribbean would obviously be a great advantage.

The process of producing effective materials, delivering them, and supporting students' learning requires a complex, highly integrated, systematic approach. For purposes of discussion, we distinguish as sub-components of this process: course development, course delivery, student support, and evaluation. Figure 2 outlines the major phases of the kind of distance education system described here:

FIGURE 2 : THE COURSE DEVELOPMENT PROCESS


University Dist. Ed. Programming Priorities
Course identified dist. ed. offering
Designate a course author
Instructional Programme Officer Assigned by Centre Director
Commission course team
Identified through the office of the University Dean in consultation. Budget implication realised
Media specialist copyright officer, other support staff
Nominate a peer reviewer
Create a multi-mediated course package. Specify student support requirements
Budget allocation from Centre budget for academic resource.
Final Manuscript (word processor) form
Mock-ups and Masters of supporting materials
Physical Production

Course Development

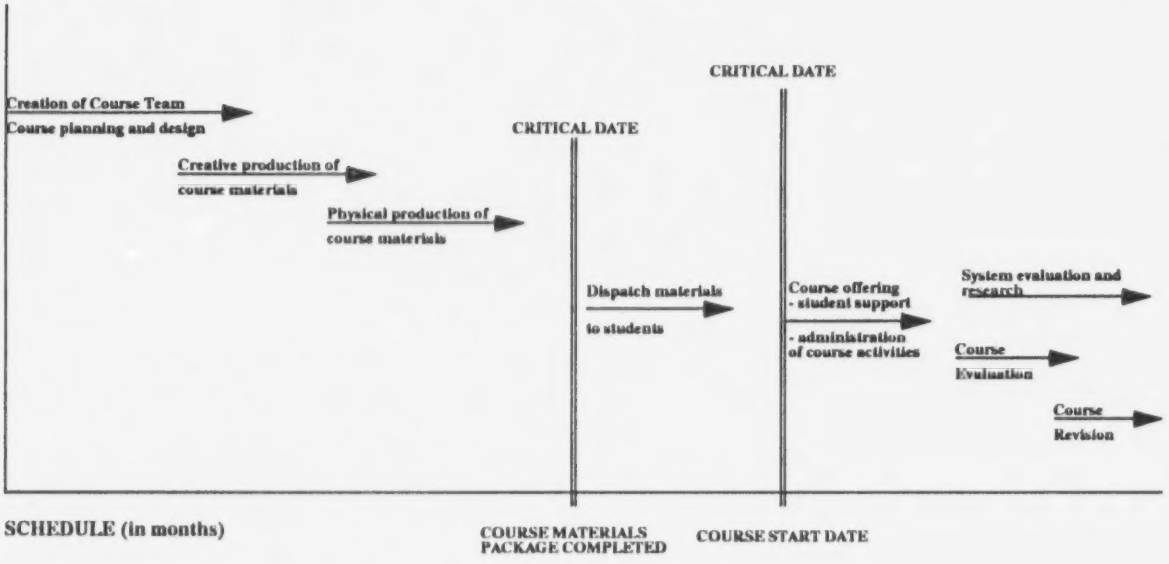
Course development is the process whereby the course content commanded by a lecturer or team of lecturers is converted into mass produced learning materials. For convenience of reference, we further distinguish a 'creative production' phase and 'physical production' phase. (Figure 3, p.63). The creative production phase involves a course lecturer writing the instructional material with the collaboration of the instructional programme officer, and producing other kinds of instructional materials (slides, tapes, charts and so on) - again with instructional advice from the Centre's programme officer, but perhaps also with assistance from other staff support units within the University, such as a media resource centre. The creative production phase is critically important because weaknesses in course design that persist beyond this stage get visited on substantial numbers of hapless students at a later stage.

Various quality control procedures must therefore be built into the creative production phase. One of these has already been alluded to - the course lecturer should be able to rely on the Centre instructional programme officer for expert advice on presentational and instructional matters. In addition, the present practice of the University in requiring a peer to review distance education materials should be continued as an integral part of the creative production of a distance education course. The end product of the creative production phase will be a final manuscript for printed material and perhaps mock-ups (or even master copies) of other kinds of course materials. Special requirements for student support - such as, for example, laboratory exercises, would have been specified in general terms before the course development began, but detailed requirements would need to be specified by the end of the creative phase.

We recommend that the University adopt the administrative device of the course team as a means of formalising the creative production phase (as well as for managing a number of other subsequent matters). This implies commissioning the creation of a distance education version of a course, designating the course lecturer or lecturers who will write the course, designating a programme officer from the Centre, and ensuring the involvement of those others who ought to be involved (for example, peer reviewers, a media specialist, a copyright officer, a representative from the library). Course teams should be kept small and all members of the team

must be very clear about their responsibilities and how they relate to those of the other members of the team. Specifically, it is the responsibility of course authors to adjudicate all matters relating to the academic content of the course, since it is they who must live with the consequences of the bad (or good) distance course that results. However, a right of appeal may reside with the programme officer and the peer reviewer in those (no doubt rare) instances in which the course may be of such poor quality that they wish to disassociate themselves from it. The responsibility of a Centre programme officer should be, in the first instance, to offer high quality instructional expertise in producing the course, and then to act as the project manager, monitoring and reporting on the status of the course. And programme officers should be empowered to enforce University rules regarding course readiness and availability. No distance course should be advertised before it is substantially ready for distribution. If critical dates in the production of a course are missed, a programme officer should be in a position to flag these and the sanctions should be clear.

FIGURE 3 : THE COURSE DEVELOPMENT CYCLE



Some form of nominating process will be needed in the development of courses whose participating lecturers are to be drawn from all three campuses. We would see the responsibility resting with the relevant University faculty dean in

consultation with his or her colleagues. Underlying the matter of procedure is a deeper and perhaps a more contentious issue of policy. During the last decade, as the three campuses have been given greater autonomy, there has been a tendency for some courses taught in the same subject in Year 1 to diverge. The logic of what we are proposing is that courses developed for off-campus study should be University courses (even though they may be developed by teachers on one campus), and their successful completion must give the same right to proceed to Year 2 in a given subject on all three campuses. A decision to develop programmes of study for off-campus students thus raises a question of University policy for campus students as well.

The creative production of distance education courses will raise the following issues:

1. Copyright for a distance education course should be held by the University through the academic department. This issue has a legal edge and the University ought to deal with it formally. A very important consequence of this sense of the course as the property of the academic department allows departments to revise courses at will without necessarily involving the original course author. Another consequence is that the University may choose to market its distance education courses unencumbered by ownership claims.

2. Copyright clearances for acquired (purchased) material will need to be properly obtained. Moreover, the conditions of copyright should be negotiated in view of the University's intended use of the material and how it sets fees for course materials. Specifically, copyright clearance should be obtained to cover all the countries it serves, and if the University proposes to 'sell' the materials to students and/or other institutions, this needs to be covered as well.

3. The University should realise that, even under a policy of using a 'course materials package' approach to distance education, considerable variation is possible. For example, a course might be written entirely by the course lecturer with minimal materials acquired from elsewhere, or it might be based primarily on a text book and other purchased material with only a student guide and assessment material produced by the course lecturer. And some

courses will require certain kinds of learning activities (e.g. laboratories) that need to be accommodated. Such variety is healthy and necessary to meet the particular requirements of the range of courses to be offered at a distance. The University should guard against a single style of approach to course design.

4. Each academic department should appoint a faculty member to serve as a co-ordinator for distance education programmes emanating from the department. This departmental academic co-ordinator would serve as a single source of reference for these programmes (as is currently the case for the co-ordinators of the CPA and CBA programmes).

By the 'physical production' stage the course author will have completed most of his/her active involvement, although there will be an on-going review process to make sure that all the parts to the course come together as they should. The Distance Learning Centre would be responsible for doing all those things required to make the course package a reality. This begins with converting the manuscript (preferably in electronic form) to final form format. The Centre would work-up a standard format and set of guidelines for the presentation of the course material packages and the content produced locally - and this should be in consultation with others within the University (such as the University Press) who share this responsibility at large. When final approval is given by the course author the Centre would then print the course material. In some instances this may be a matter of superintending large production runs in print facilities elsewhere, and in other instances distributing electronic forms of print material to other points for printing and distribution to students.

To the extent that materials and/or services have to be purchased to produce a course in distance education mode, the Centre should have a budget through which these costs should be covered. If purchased books are to be included in a course package, this should be specified in the course design and appropriately budgeted for. The Centre should be responsible for acquiring all purchased text material for distance courses and for maintaining course materials inventories appropriately.

The Centre will require some desk top publishing capability of its own - partly to assist with the production of low volumes of materials and partly for its own

purposes, since the Centre will also be producing materials of its own for the student packages (e.g. study guides, course guides, programme advice). The Centre will also require a telecommunications capability that would allow it to down load text in electronic form to distributed locations for printing and distribution to students. This issue will be taken up in more detail in a following section.

Another major requirement of the Centre will be for appropriate space for warehousing, receiving and despatching of materials.

Course Delivery

By this stage, the course materials package should be complete and available to students. There are a number of critical issues inherent in distributing course packages to students:

1. Students must have the course packages in hand before the official start date for the course.

2. Time and money can be saved by sending course materials text files electronically, and the University will have to evolve in that direction if it does not start at that point. Printing facilities would need to be installed at each of the University Centres (assuming them to be the point of distribution of such materials to students in the territories) and reliable communications are essential. If such material is to be trans-shipped within a country, there must be administrative procedures (and budget) to enable the Centres to do this. If courses consist of a variety of materials, some of which must be sent to territories or direct to students then the University must take direct steps to improve mail/freight service. The most promising prospect seems to be in negotiating an arrangement with local air carriers for a preferred rate, private bag system. The least satisfactory is to rely on the regular mail service. The present practice of using courier services is economically inadvisable.

3. The University needs to decide the role that the Centres are to have in all this. Ideally, they should be an arm for the Distance Learning Centre, serving as local co-ordinating bodies for distance education. They would distribute course materials, handle all administrative matters such as registering

students, collecting fees, and co-ordinating the flow of student assignments. They will become repositories of crucial learning resource materials, such as microcomputers and library reference books. In any event, the role of the Centres (and Resident Tutors) needs to be regularised, the Resident Tutors need to be vested with proper authority, and an appropriate budgeting structure set up.

4. The University Centres should continue to play a vital part in arranging tutorial support for local students. For some students they will take the form of organised tele-tutorials; others will have regular face-to-face tutorials conducted by local tutors. There will be policy choices to be made as to which is the preferred way of working. The telecommunications network we propose would have the technical capacity for a much greater volume of tutorials to be conducted from a distance, and particularly from UWI campuses. A limiting factor, however, would be demands on the time of faculty. The alternative will be to build up teams of local tutors who, as well as providing regular tutorials, will be a local point of reference for their students, supported electronically by advice and academic guidance from campus teachers.

5. Assigned work from students should be submitted regularly and it must be assessed expeditiously and returned quickly.

6. The University has to decide what kind of course materials package would constitute a standard distance educational service. Currently, students are responsible for acquiring their own (purchased) text books and they are currently charged for the (in-class) tutorial support they receive. We believe the University should make all required course materials available within the course package and provide a standard level of tutorial support (where possible) as an integral part of the distance education course experience.

7. The University needs to decide what type of fee structure should be instituted for distance education courses. We would suggest that the University split the course fees into two components (setting aside the issue of fees that may be charged for administrative purposes). One would be a straight tuition fee (corresponding to the course fee charged for an on-campus course); the other course materials fee (corresponding to the cost borne by on-campus students

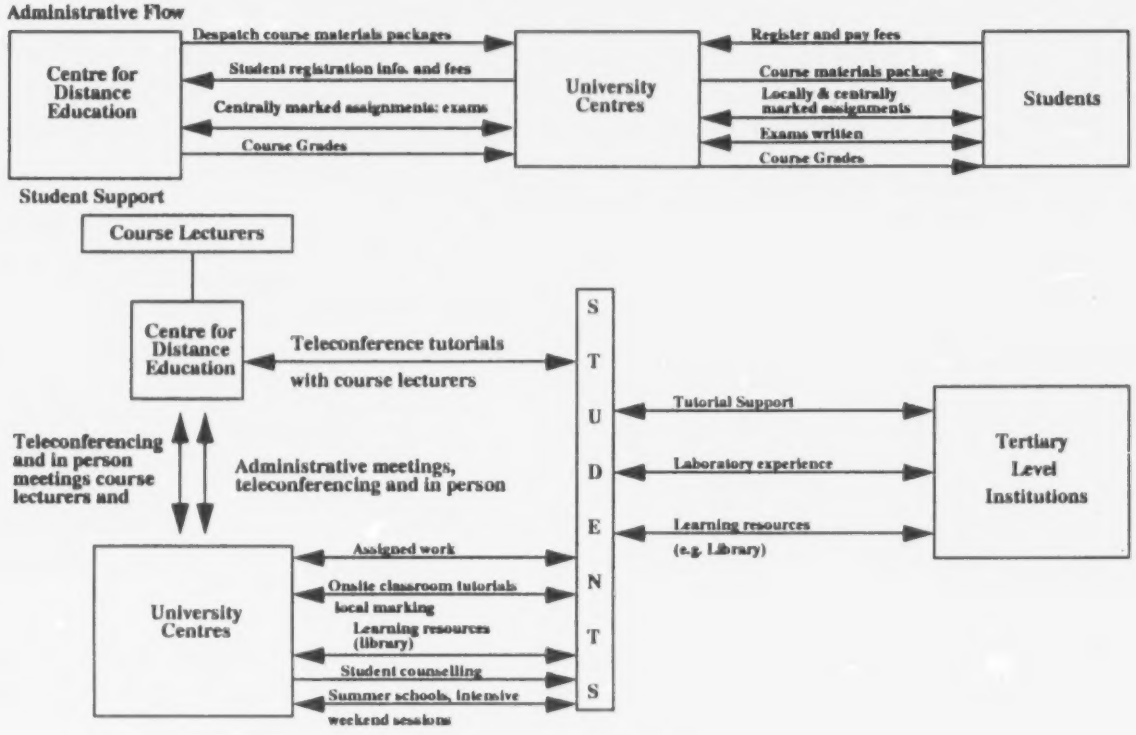
for text books). The reason for proposing the splitting of the fee is that the cost of purchased texts and other material has increased at a much greater rate than could be compensated for (or tolerated) if levied as part of an over-all course fee. In view of the high cost of text books and the substantial financial burden this represents to students who have to purchase them, we think the University would be well advised to consider an arrangement in which, for a user's fee, students would lease required texts (and perhaps other material, such as audio cassettes) and turn this material back into the University when the course was over. The arrangement could be placed on a cost recovery basis and user's fees set accordingly. The University of Waterloo in Canada successfully operates such an arrangement and might serve as a useful model.

Student Support

Course delivery and student support are often coupled together as functions because they both have to do with the student side of the distance education transaction. We have separated them because much of course delivery is administrative in nature but student support has to do with the academic guidance and tuition of students. UWI has already demonstrated its commitment to a philosophy of education that values and requires students studying at a distance (in so far as possible) to have the benefit of person to person interaction with course tutors. We think this commitment to student support contributes greatly to the quality of the distance education experience received by distance students and such support does much to ensure the academic quality of the distance education offerings.

Another student support service of value to distance education students is programme advice. We see the responsibility for this service as an important responsibility of Resident Tutors and/or tutors in the national University centres. Distance students in particular often need advice about what courses and programmes they should take. Of particular importance is advice on study skills, coaching in how to write essays, cope with exams, and so on.

FIGURE 4: COURSE DELIVERY : STUDENT SUPPORT



Evaluation, Research and Development

Through UWIDITE the University has already experienced both the importance of innovation and the value of properly conducted evaluation as related factors in the improvement of educational performance. Some of the agencies funding programmes that have been made available to countries of the University region have included student assessments and other forms of evaluation as required components of the programmes to be delivered. We have read some of these and they have helped us to form a picture of some of the strengths and weaknesses of UWIDITE. It is a pity, however, that the University has not been able to keep its records of registrations and passes on UWIDITE programmes in ways that would enable their cumulative impact in terms of the academic progress of students and the operational costs of UWIDITE to be analysed on a reasonably comparable basis with the costs of teaching the same courses face-to-face. The statistical methodology of the comparative studies so far undertaken does not allow inferences to be drawn with any degree of confidence.

We believe it essential for the University to place its policies for distance education in a context of evaluation, research and development. Initially, it will be necessary, when thinking about its priorities, to make careful studies of the potential demand for particular programmes of study. It will also be important to monitor the demand for programmes once they are available for distance study to ascertain whether, or for how long, the University should continue to offer particular programmes. And those who are writing, developing and teaching courses for distance study should have regular access to feedback information from their students on the effectiveness of the study packages, tutorials, and other forms of support intended to facilitate their learning. Whether this should be done within the Centre or by teaching development units as part of a wider University service raises questions which the University would want to consider.

The Distance Learning Centre should give considerable thought to the kinds of data it will need in accounting for its operations and to the management information systems to be used to gather the data. The numbers and distributions of students (over time) and their characteristics are obvious needs and can be obtained through regular forms and record systems. Course and programme performance data and various comparisons within those data are another source of interest. The Centre would do well to set out a modest but meaningful plan for illuminating these and other issues.

The world-over, distance education is not only an expanding function, it is the subject of unprecedented innovation. Students who once received cyclostyled booklets now work from the products of sophisticated desktop publishing. Learning packages which used to be printed in one place and transported to others can now be transmitted on disk and reproduced at local distribution points. Where once students received only print-based materials, now they may use audio and visual materials to assist their learning. Sophisticated multi-media packages, transmitted on disk by electronic means are already in use, and are becoming part of the stock-in-trade of course writers and course developers in other parts of the world. Many students who, once, studied at a distance and in isolation now have voice and sometimes video contact with their teacher or a tutor. Some fax their assignments to their tutors, who fax back their comments and assessments. Through summer schools and scholarships, some students who begin as extension students are able to

experience face-to-face teaching or life as a full-time student on-campus.

Whatever else it is, distance education is not in a steady state. Those who want to improve the effectiveness of the University's contribution to it can be expected to advocate changes which, in their judgement, would result in more effective learning by students enrolled in its distance education courses. We are ourselves part of that advocacy. We think that an enhanced telecommunications network, a much greater commitment to printed study materials, planned reliance on local tutors and more use of summer schools have the potential to make students' learning more effective and, by so doing, reduce drop-out rates, increase pass percentages, increase the number of students completing degrees and diplomas, and reduce the time it takes them to do so.

These are testable propositions - not in the clinical sense that, if subjected to research, they are capable of definitive answers, but in the policy sense that, if implemented, their contribution to successful learning at a distance by UWI students can be monitored, researched, and evaluated. For example, a decision to use local tutors as part of a planned strategy would require course teachers to devote time to tutor development but, if they did that, they might find it a more productive use of their time than weekly tele-tutorials for students. There would be another trade-off to be investigated between a greater use of local tutors and the benefit to students of visits to University centres by course teachers.

Because distance education is a complex operation there are a number of inputs whose contribution must be evaluated in any systematic attempt to reach judgements about is effectiveness. Some studies of UWIDITE's contributions allow some inferences to be drawn, but more are needed and they should be planned as a comprehensive programme of research and evaluation. The information to be sought would be essential in keeping the University informed on the performance of the instructional systems that will be used by a growing number of its student load. It should become indispensable for reviewing UWI's objectives for distance education, the means by which they are most effectively carried out, and the budgetary support needed to maintain services and improve quality. It is obviously relevant to course writers, course teachers and programme officers as evidence of the relative effectiveness of their efforts. It is equally important for the Director of Distance Learning as feed-back on the distance education system, and would have a

continuing bearing on the advice she (or he) would give the Distance Education Management Board on the mix of policies that seemed to hold the most promise for the further development of distance education policies. And, suitably interpreted, it would become an important ingredient in advice and guidance for people contemplating or undertaking distance education in the University's member countries. By committing itself to properly planned review and evaluation the University will lay a basis for improving the quality of its decision making when making policy for distance education. It will also be fulfilling part of its leadership role in the Commonwealth Caribbean, where distance education initiatives are becoming an important part of national educational policies.

Administering The System

Administrative concerns dominate all the operations of a distance education system. In addition to the points we have already emphasised, there are several critical administrative matters that must be singled out for particular attention:

1. The Distance Learning Centre should be responsible for registering all distance education students through the University Centres and receiving course fees. This system should, of course, be co-ordinated and integrated to whatever extent possible with registration and financial information systems. But the Distance Learning Centre must have this student and financial information on hand if it is to function properly.

2. The receipt and return of all student assignments and examinations should be routed through and logged by the Centre. There are several reasons for this: one is to facilitate the timely flow of 'mailed' items throughout the system; another is to compensate for the absence of such tracking mechanisms within the academic departments. Through such monitoring the Centre will be in a position to ensure that assignments and exams are marked and returned according to previously agreed timetables.

3. The Centre should make every effort to computerise its operations and to link all its operations in an integrated system using telecommunications.

Telecommunications

A distance education system as widely dispersed as the one UWI currently runs and, more particularly, would need to run in future, must rely heavily on an effective telecommunications system. A telecommunications system is simply a distribution network for electronic signals, whatever the source or purpose. Consequently, a properly configured communications system could be used to transmit data (as that term is usually understood) which, for instance, could be registration and fees information for students, electronic versions of text (as in word processed copies of course materials, for example), voice (as in teleconferencing), and even video (if the system is stretched somewhat).

A well designed communications network will support a wide variety of functions - many of them administrative and many of them instructional, and all of them important to distance education operations. This must mean that the University's requirements for distance education should not be considered in isolation from its other telecommunications requirements. Fortunately, the timing is right. The telecommunications backbone the University is planning for the computerisation of the three campuses will provide the necessary basis for the further development of what will be required for its distance education operations. The fibre optic network now being planned will connect a maximum number of clients/users with a high capacity communications facility - and will provide enormous communications potential within each campus. The next major element would be a high capacity relay facility provided by a satellite. There are indications that access to such a satellite is a real possibility. In that event, with send/receive earth stations on each campus, a flexible and powerful communications network would link the three campuses. An extension of this network to the non-campus countries would then see the University well placed to develop and refine its distance education system.

The flexibility inherent in a system with a well developed communications background would facilitate the provision of distance education by various sources in the University. For example, the Faculty of Engineering could continue to develop its distance education programming through the telecommunications network it now supports. However, when a full telecommunications network is available the faculty will be able to avail itself of a much broader coverage and hence extend the impact of

its distance education activities. Other faculties become candidates as well - medicine, agriculture, education and law being most likely. Moreover, the University could also extend the use of communications in ways not currently practised - for example, in computer conferencing and possibly ultimately to forms of computer-aided instruction and computer assisted teaching.

The challenge for the University will be to co-ordinate and phase its plans to take advantage of the gains in flexibility and capacity possible through a telecommunications network. This implies continuing the initiative in wiring the campuses with fibre optics, seeking the requisite satellite transmission vehicle and acquiring requisite equipment. The Caribbean Development Bank is assessing the University's telecommunications requirements in the context of proposals for the upgrading of the telecommunications facilities available through UWIDITE and for the development of its distance education operations. The CDB is also having regard to the conclusions of our appraisal of the University's telecommunications requirements, so we will summarise them here.

Firstly, we must emphasise that, although it had its origins in UWIDITE as an interest in telecommunications for the purposes of distance education, the University's interest must be that of the University as a whole. Distance education can be expected to be a main user of telecommunications but it should see itself - and be seen by others in the University - as one among a number of users for whom the University must provide efficient telecommunications services.

Secondly, although UWIDITE has emphasised the use of teleconferencing to enable University lecturers to hold tutorials for off-campus students, a telecommunications policy for distance education will need to meet several other requirements as well. The management of distance education will be greatly facilitated by the ability to speak to colleagues on other campuses and transmit messages and data by computer. So, too, will the complex processes of course design and development. Regular communication with lecturers in tertiary level institutions and with the tutors of off-campus students will also be achieved most effectively through teleconferences, supported by fax and/or E-Mail.

Thirdly, initiatives resulting in programmes of distance education will come from all three campuses and from all faculties. The people with whom contact by

telecommunications is to be made and the places where they live and work will be so various that the University will need telecommunications services of great variety and flexibility. It will need a University-wide policy for telecommunications for distance education but distributed and decentralised forms of management.

Fourthly, and in the light of the requirements listed above, the University will need to give careful thought to the basic form of the telecommunications services it provides for distance education. UWIDITE operates on the basis of leased lines linking designated centres for point-to-point teleconferencing and the transmission of some visual signals. But the evidence of present and likely future demand is that the University would be better served by 'dial up' services which would allow it to communicate with the increasing number of people who can be expected to be actively involved in its distance education activities.

Distributed Responsibilities

One of the themes of our discussion is that UWI is a complex institution, distance education will add to the complexity, and the University's policies for the management of distance education will have to acknowledge this as an unavoidable fact of University life. Another theme, however, is that distance education operations must be efficient: the efforts of many people, working in different places, must somehow be combined so that various deadlines will be met effectively and on time. The conventional wisdom is highly sceptical of decentralised activities that are also efficient, but the University must find ways of showing that what may commonly be believed need not always be true. It will be necessary, therefore, for the Distance Learning Centre to have a presence on all three campuses and clear lines of communication with all faculties and all University Centres. We are assuming that the Director of Distance Education will be located on one campus; that that campus will house the central activities of the Centre for Distance Learning; that the Centre will have a presence on the other two campuses through deputy directors and at least one programme officer; and that on all three campuses the Centre for Distance Learning and the teacher development unit will be administered under a common policy umbrella.

Wherever the main office of the Centre for Distance Learning is put, University teachers on all these campuses will be linked for computer messaging.

We are assuming that the University's telecommunications facilities will have been upgraded before it teaches distance education courses in ways that require the regular despatch of printed materials from University campuses and University centres to students living in non-campus countries. We are assuming that through the technical possibilities of desktop publishing and computer-to-computer electronic links, course booklets, study guides, and other printed materials will be printed in the University Centres, thus avoiding a great deal of physical transport of printed materials to various points in the Caribbean. And we are also assuming that, wherever possible, the marking of assignments will be done by local tutors, thus again cutting down on the number of communications that will require the movement of papers from territories to a campus for marking and return. From the point of view, then, of telecommunications and the need for postal services it may not matter where the Centre is located.

When we turn to requirements for the development and teaching of distance education courses, different considerations can lead to different conclusions. In our proposal, and apart from the contributions of the Centre for Distance Learning, distance teaching will in time become a regular responsibility of campus teachers. Different questions will be raised depending on the faculty to be considered. The professional faculties of agriculture and engineering at St. Augustine and, so far as we can judge, medical science on all three campuses seem likely to be able to achieve a considerable amount of self sufficiency. Their work in distance education also seems likely to concentrate on postgraduate and continuing education, and numbers will be such that they will be controllable. Their needs may well be met through an upgraded telecommunications system and the professional links they will develop with the Director of the Centre for Distance Learning. The physical location of the Centre will probably not be crucial to the success of their distance education activities.

The faculties of education are already experienced in the development of off-campus programmes of study and from the nature of their disciplines are well placed to incorporate distance modes in their programmes. They could also play an important role for teachers and many other professionals in the Caribbean by developing formal programmes of study in the theory and practice of distance education. And we expect the Director of the Distance Learning Centre to draw on their expertise for campus programmes of staff development on aspects of distance

teaching and learning. Likewise, the University, through the knowledge of teachers in other faculties on all campuses, can draw on a considerable background of experience in the planning, development, and management of complex organisations akin to what is envisaged for its distance education activities.

The faculties of arts and general studies, natural sciences, and social sciences - all of which are established on all three campuses - will have to respond to different demands and will be differently placed in their ability to meet them. Social science is already engaged in distance education and can be expected to become more so in future. We have identified natural science as a priority for the provision of pre-University and Year 1 undergraduate courses by distance education. Arts and general studies can also be expected to become involved. Separately and collectively they can be expected to have the largest number of distance education programmes for the University's undergraduate students undertaking distance courses.

To spread responsibilities and make the best use of specialised knowledge, the University will want to be able to call on teachers as appropriate in any of the three campuses in the faculties of arts and general studies, natural science, and social science. Team approaches should become the operating norm. An improved teleconferencing facility will certainly facilitate discussion between campuses. The ability to communicate texts in advance by fax or electronic mail will also improve the effectiveness of such teleconferences. The difficult question is to assess how efficient, and, in the end, how productive teams of colleagues will be in developing course materials to pre-determined deadlines if all or most of the members of the team are not colleagues on the same campus. The establishment of production units on each campus with facilities for desk-top publishing will of course make it easier to meet deadlines for the printing and distribution of teaching materials. We think that each faculty should appoint a programme co-ordinator who, working with programme officers of the Centre for Distance Learning, would do everything possible to ensure that the work of distance education is conducted efficiently.

The largest number of the non-campus countries likely to benefit from distance education programmes are of course in the Eastern Caribbean. So, too, it seems, will be most of the tertiary level institutions with whom the University is likely to be developing co-operative relationships for the teaching of parts of undergraduate courses for University credit. Bahamas and Belize, though by no

means small in numbers, do not look to UWI in the way the Eastern Caribbean countries do.

In thinking about how to organise the work of the Director of Distance Education it will be important to have regard to the number of people in the Centre for Distance Learning who will work full-time on the development of programmes of study. Indeed, the size of staff of the course development responsibility will be one of the basic building blocks for University policies for distance education. That number will set limits to the number of programmes the University will be able to convert to distance mode and the number of years that will be needed to convert each programme. It is not easy to quantify work loads for people who will work in an organisation that has still to be created, but we are assuming that, initially, the programme officers of our proposal could be expected to manage the development of five year-long courses of study a year. On the basis of a very rough rule of thumb calculation that could mean that it could take five to six years to convert a minimal offering for an undergraduate degree into an acceptable programme of distance education. At the end of that time it would be necessary for the University to begin a cycle of revisions of its courses.

In view of the possibilities for development we discussed on pages 23-26, and of our recommendation that the University embark on a balanced operation that included programmes related to all four of the categories of programmes we identified, we think that the Centre for Distance Learning should have an establishment of six programme officers. Whether these are all appointed at once or phased in will depend on funding arrangements. It will be for the University to determine its priorities but we think there is a strong case for them to be deployed initially as follows:

1. Certificate of Business Administration, Certificate of Public Administration
2. B.Sc. Social Science Year 1; B.Sc. Management Studies; B.Sc. Accounting
3. Preliminary Mathematics and Science; B.Sc. Natural Science, Year 1
4. Non-Credit Continuing and Professional Education
5. Post Graduate courses
6. Leadership programmes

As we envisage it, then, teachers on all three campuses would be actively

engaged in course development and, later, course delivery. If the course development function of the Centre for Distance Learning were to be managed as a decentralised operation, deputy directors would be appointed to two campuses to act for the Director and it would be desirable for them to be supported by at least one programme officer.

TERMS AND CONDITIONS OF EMPLOYMENT

When UWI becomes a dual mode University its teachers will be required to take on responsibilities towards students enrolled in their courses either as campus students or distance students. At first the balance of work for most teachers will fall heavily on the side of face-to-face campus teaching and some faculties and departments will have larger numbers of distance students than others. Depending on the course of study and the department, however, some lecturers will have significant responsibilities for distance students. The question that all dual mode universities face is how to define and administer the conditions under which their teachers are to undertake their responsibilities in each mode. As we see it five issues have to be worked through. These are :

- the formal conditions of lecturers' appointments;
- the induction of new members of staff and arrangements for staff development in distance as well as face-to-face modes of teaching;
- the conditions under which lecturers develop and revise courses of distance education and teach them;
- the recognition given to good teaching, whether in distance modes or as a campus teacher;
- and the University's policies for monitoring, reviewing, and evaluating its distance education responsibilities.

Contracts

There should be an explicit understanding that every faculty member has an obligation to teach both on-campus and off-campus students, and the University's contracts of employment should include a statement to this effect.

Induction and Staff Development

The induction of new members of staff is an aspect of campus life whose importance is too often underestimated. For reasons we have already touched on, it is particularly important in dual mode universities and, for a University such as UWI, the transition to a dual mode operation will require some form of induction for virtually all staff. Successful distance education operations depend on the cooperation of many people. It is therefore highly desirable that all members of the

University have a good working understanding of what is entailed by distance teaching even if they are not at the moment directly involved; and it is essential that teachers coming fresh to its responsibilities are inducted into them effectively. We see it as part of the responsibility of the Centre for Distance Learning to ensure that this happens and that there are regular opportunities for lecturers to be kept abreast of new developments in distance education relevant to the University's missions. A continuing programme of workshops and seminars on appropriate aspects of the theory and practice of distance education together with personal study programmes for individual University teachers will be needed. We would see the Centre working closely with the campus teacher development units in this aspect of its work.

Developing/Teaching Distance Courses

Broadly speaking, universities administer the development and teaching of courses of distance education in one of two ways. Some regard the activity as additional to the lecturer's normal duties and pay for it under a separate contract. Others include the responsibility as part of normal duties and have rules that are intended to moderate the demands arising from the different modes of teaching and deal reasonably fairly with lecturers irrespective of how much teaching they are required to do in each mode. We think the University should adopt this latter approach. Both approaches have advantages and disadvantages. But we are convinced that for UWI, where distance teaching can be expected to become a permanent and an important means by which it seeks to meet the expectations of the peoples and governments of its 14 member countries, teaching in distance modes should be developed as a regular, expected feature of lecturers' teaching service. Having said that we should also add that there may be occasions when the only way that some course can be developed to meet the requirements of a planning timetable is by commissioning someone to write it as an addition to his or her normal teaching load. We would not see the general policy being applied so rigidly as to exclude such an eventuality.

On the approach we are proposing, the University will have to establish policies for the funding of faculties and departments for their distance education responsibilities, for the apportionment of individual teaching loads associated with such responsibilities, and for the accountability of faculties and departments for money allocated to them for distance education purposes.

On the first of these - funding - we are assuming that, as a function of the University Centre, UWI's responsibilities for distance education will continue to be a charge on the Centre budget. Until now those costs have included the costs of running UWIDITE, telecommunications charges, and such items as lecturer travel to conduct tutorials for off-campus students in various territories. As we understand it, off-campus students are not included in calculations of the numbers of students for which each department is responsible. It will be necessary for the University to identify registered distance students as a factor which, together with campus students, constitutes a total teaching load for each department. Having done that, it will then have to equate its distance teaching enrolment with a budget to be disbursed to departments in proportion to the number of distance courses they are responsible for and the number of students they are teaching.

University teachers with responsibilities for distance courses will be required to do some or all of the following :

- write new courses and revise existing ones;
- vet local tutors and support them in their work;
- prepare for and conduct regular tele-tutorials;
- monitor standards used by tutors who mark assigned work for which the University lecturer is formally responsible;
- examine or assess students at the end of each course;
- and, depending on how the University organises its distance education operation, may be responsible for ensuring that the delivery system is working effectively for the students enrolled in their course.

These can be divided into responsibilities for developing new courses and revising existing ones, and for teaching and/or supervising distance courses. Each responsibility should be funded by separate budgets. The decision to develop a new programme of distance courses will be a major decision to be made by the Distance Education Management Board, which will earmark the funds which may well be expended over several financial years. The faculty responsibility for carrying out the development work would then know how much money had been allocated and when it was to be spent in accordance with the timetable for completing the task. Essentially, what is to be purchased with this money is the time to be set aside to enable a University teacher, or a team of teachers, to plan and write the materials for the distance course. We are thus talking primarily about the cost of replacing

teachers while they are engaged on that task.

How to quantify the demands of distance teaching and equate them to the demands of campus teaching, it must be confessed at once, is fraught with difficulty. As a matter of University policy, distance teaching ought to be valued as much as good on-campus teaching, and academic staff should not feel that their assessment and promotion prospects are impaired by their distance teaching commitments. A lecturer's instructional workload (leaving aside research and public service) is usually thought of as comprising: class preparation; time spent in contact with students in classroom lectures and tutorials; the number of students taught (which is a surrogate measure for the time required to deal with each student, some of which is attributable to marking student work and some spent in direct discussion with the student); and examining. In distance teaching the components of workloads are : preparation of the course materials package; providing and/or supervising tutorial support to students; the marking of student work; and examining. But there is no analogue in distance teaching of classroom contact hours (although distance tutorial sessions can be thought of as directly comparable to on-campus tutorials). The course materials embody the instruction an on-campus student would receive through the scheduled lecture time, and in this sense, are a substitute for contact hours. Moreover, in principle at least, the amount of individual contact with students could be expected to be considerably less in distance teaching.

This is one of those situations where apples are being compared with tomatoes and very different views can be held about the numerical values each should be given in the construction of a calculus for measuring teaching loads. It is, however, something that all dual mode universities must struggle with, and the University will no doubt want to consult the experience of dual mode universities that have worked out their own norms. The point we must make here, however, is that the general issue should not be shelved because of its intrinsic difficulty. Teachers who rankle because they believe they are being unfairly dealt with can scarcely be expected to approach their responsibilities for distance education with the degree of commitment their students have a right to expect.

Assessment and Promotion

Distance teaching often gets short shrift in teachers' priorities in dual mode universities. Whatever the institutional rhetoric, it is seen as something to be done

after one's research, on-campus teaching and public service responsibilities have been attended to. Part of the reason for this is that distance teaching is often added to lecturers' regular work loads and there is simply no way they can properly do all they have been given. The proposals we have outlined above are offered as ways of dealing with this problem. But there still remains the general problem (and it also exists with respect to on-campus teaching) of recognising and rewarding good teaching, and preventing over-emphasis on research in assessments and reviews of performance. It is not one that can be solved easily but other Universities can be turned to for guidance. So we urge the University to continue with its efforts to encourage good teaching by identifying criteria and procedures that can be used in assessment and promotion procedures.

It seems to us that workable procedures can be more readily found for distance than for face-to-face teaching. Distance teachers have course materials as public evidence of their distance teaching efforts. The assessment of their quality is the next step, and we believe this can be accomplished by modifying the procedures under which the assessment and promotion process proceeds. We suggest that lecturers be invited to include in the set of materials submitted in support of their case to the A. & P. Committee, copies of the distance teaching materials they have produced. These should then be reviewed by appropriately chosen reviewers as evidence of distance teaching proficiency. Such reviewers would have to be given clear guidance as to what is expected of them. They would be asked to judge the quality and effectiveness of the materials as distance teaching materials, not as scholarly works as would be the case for journal articles and perhaps text books. This specification should be included in the handbook or guidelines that publicise assessment and promotion procedures. We would also expect the University to make regular use of outside reviewers who would advise it on the developing quality of its work in distance education. In this way panels of outside reviewers would be built up, whose members were well informed on what the University was attempting to achieve in distance education. Members of these panels could also be asked from time to time to evaluate the materials submitted by individual lecturers in the context of assessment and performance.

Accountability

As part of wider University policy for reviewing the effectiveness of its work, we would expect it to monitor and evaluate its policies for the development and

teaching of distance education courses. All educational institutions are having to become much more attentive to the outcomes of their various academic and funding policies. This means that the policies themselves should include regular provision for evaluation and review. Because it is about to branch out into a new mode of teaching, the UWI has an opportunity that many other dual mode universities have inadvertently overlooked. The amount of lecturer time, money and supporting services that will be directed towards its distance education activities will soon become quite sizeable and it would be prudent, as a matter of policy, to formalise procedures for review, accountability, and evaluation from the beginning. The Distance Education Management Board, using the Office of Planning and Programming as its agent, would seem to be the appropriate body in the University to initiate these processes, consider information provided by these, and authorise any actions or decisions arising from them.

MANAGING THE TRANSITION

The distance education policies and operations we have described will be a major addition to the University's responsibilities. Their effective introduction and management calls for consistent policy direction, detailed planning, and assured funding. The University will need to give a very high priority to distance education within its overall management if the system we propose is to be firmly established by the end of the decade.

An obvious limiting factor will be the availability of funding, and this will need to be dealt with under three main headings. The installation of a fibre optic backbone and the computerisation of the campuses is a pre-requisite for developments in telecommunications that will be indispensable to effective distance education in the University's non-campus countries. This will need to be dealt with first, but with the later requirements of distance education and the University Centres in mind. Money will be needed for accommodation and equipment for the Centre for Distance Learning and the national University Centres to enable these units to service an expanding distance education operation. These developments should be planned and carried out in conjunction with the parallel development of teacher development units for the three campuses. Provision will have to be made in the University's recurrent budgets for salaries, supporting services and the operating costs of distance education. We are assuming that this will require a decision of the University's Grants Committee for a new funding item.

To orchestrate these developments, it would be advisable for the University to establish the Distance Education Management Board as soon as possible and give it the responsibility for steering what cannot avoid being a complex, interrelated set of initiatives. That Board should include the senior decision-makers in the University whose contributions will be crucial to the successful development of distance education.

The early appointment of the Director of the Distance Learning Centre will also be necessary. The Director should be a member of the Board and his or her advice will clearly be of great importance to it on all aspects of distance learning. We assume, too, that the Director, working closely with the Pro Vice-Chancellor Outreach and Institutional Relations and the Pro Vice-Chancellor Programme and

Planning, will become intimately involved in planning the accommodation, equipment, telecommunications, publishing, media, and other supporting services necessary for distance education. No less important, the Director and his/her colleagues in the Centre for Distance Learning will be the University's source of expert advice on the development of programmes of distance education and the most effective ways of teaching and supporting them. We would see the Director establishing working relationships with the people inside and outside the University who are already conducting distance education courses or are planning to do so; building an inventory of the expertise in distance education that is already available within the University and in the territories of the University region; and, in consultation with teachers in the faculties, developing the operating protocols and procedures for course teams, student registration, student records, the compilation of statistics, the appointment of tutors, and arrangements for review, evaluation and accountability.

If the Director is to carry out these responsibilities effectively, other key appointments will also have to be made as part of the setting up of the Centre for Distance Learning. It is, as we have emphasised, essential that the Centre for Distance Learning become the nerve-centre of a highly efficient management system. There will be a great deal of routine, day-to-day activity for which the Director will be responsible but which he or she should not be expected to attend to personally. The director will thus need to be supported from the beginning by a technical manager who would have oversight of the telecommunications network and an operations manager to deal with all aspects of programming.

The Director will not of course start with a clean slate. Through UWIDITE, the University already conducts considerable numbers of distance education courses each semester. From a date to be set, the Director should assume full responsibility for all current UWIDITE activities, technical as well as programmes and operations. This would also involve financial responsibility for the budgets allocated for UWIDITE operations and developments.

The University will need to consider whether it wishes to continue using the acronym UWIDITE once its use of telecommunications for distance education becomes a settled feature and is thus no longer a matter of initial experiment. A fully developed commitment to distance will comprise much more than a

telecommunications component, and to continue drawing attention to any one component would be to emphasise one part to the detriment of the operational whole. We are aware, however, of an understandable attachment to the acronym, particularly at Mona, and it is certainly true that UWIDITE has given the University international recognition during the last decade. Various suggestions have been put to us for changes in the title that would enable UWIDITE to continue to be used in future under a different dispensation. Should the University wish to retain the acronym, the variant that appeals to us is UWIDiTe, signifying The University of the West Indies Distance Teaching.

We are confident that, regardless of the flag it flies under, distance education at UWI will continue to have an important experimental base. Our emphasis on research, development and evaluation fully endorses such an approach. The prospect of having a super computer on the Mona campus opens the way for further significant innovation across the threshold where telecommunications and educational practice meet.

We are assuming that the Centre for Distance Learning will have its main physical location on one campus and a presence on the other two. We have also suggested that this presence could be established by appointing deputy directors on those campuses and housed with, or in close association with their teacher development units. To provide the necessary expertise and impetus to the writing of distance education courses on all campuses, these appointments should also be made when the Distance Learning Centre is being established. We said on p.78 that six programme officers would seem to be an appropriate level of staffing to develop courses to support the programmes of distance education we would see the University working up between now and the end of the decade. Whether the University would be able - or would want - to begin with an establishment of six, or whether it would phase some of them in over two or three years, will be a matter for further consideration. And whether it will want to make permanent appointments to all positions or, as a means of importing the expertise of others, second experienced programme officers from other dual mode universities on a short term basis, is another matter the University will no doubt also want to think about. We would hope that development assistance agencies would cooperate with the University if it wished to explore this latter possibility.

If the course materials to be developed are to be based on print but enhanced by audio tapes and visual materials, the Distance Learning Centre will need to have continuing access to the expertise of educational media specialists. Whether that expertise is to be included within the Centre or in the campus teacher development units and shared with the Centre will be a matter to be decided. Both operations will need this form of expertise. Once the Centre begins to develop study programmes its staff will make new claims on the time of campus librarians and library holdings but it is not possible at this stage to estimate their significance.

The Centre for Distance Learning will have responsibilities for induction and training in the theory and practice of distance education. We would see this at the core of the work of the Director, deputy directors, and programme officers, who would draw, as necessary, on expertise in the faculties of education and of people working in teacher development units. All associated with UWIDITE operations are aware of the need for more to be done to help lecturers make effective use of teleconferencing as a teaching device. The people who use UWIDITE are already demonstrating their commitment to distance education and every opportunity should be taken to improve their own teaching techniques and interactive skills as well as to make them familiar with other requirements of effective distance education.

That raises two other issues arising from the current operations of UWIDITE that the Distance Education Management Board will need to consider. The policy question in both cases is what, if anything, to do to repair deficiencies in the courses currently being offered and the electronic technology that supports them. It could be at least two years from the inception of the Distance Learning Centre before the first courses developed under its aegis will be available for use by distance education students. Whether the University should direct time and effort to the improvement of the courses now on offer or concentrate on the courses intended to replace them is a matter of policy to be decided. What, if anything, should be done to make the present UWIDITE technology more reliable also calls for a policy decision. One of the criticisms of UWIDITE is the lack of portable power generators that can be used if there are local power failures. These could be installed without a great deal of expenditure, but the question is whether additional expenditure on existing UWIDITE equipment is justified if it is soon to be phased out. The University will be able to tackle this question when it knows the outcome of its application for loan finance from the Caribbean Development Bank. For our part, we would suggest that

if the outcome is favourable, only expenditure necessary to maintain the operating efficiency of the existing equipment should be made.

In all these developments the University Centres have vital roles to perform. The possibilities of computerisation harnessed to telecommunications and desk-top publishing will make it possible for resident tutors to have a direct, continuing involvement in the planning and implementation of the University's policies for distance education that affect them and the students they support. The Centres will have to be funded, equipped, and housed so that they can be efficient local agencies for the increasing number of men and women whose distance education studies they are intended to facilitate. Earlier, we suggested a new name for resident tutors - one that emphasises their directive responsibilities - and we also draw attention to lines of authority, reporting relationships, and relationships with the Office for University Services that need to be attended to. We would see these matters being settled in detailed discussions that will take place when the operating protocols of the Distance Learning Centre are fashioned.

The Distance Education Management Board will need to set the policies within which the University's responsibilities for distance education are reviewed and evaluated, responsibilities are assigned, and various forms of accountability are built into routine operations. Regrettably, in our experience these are matters that are often either overlooked or dealt with superficially and in ad hoc ways. Universities that do not build a strong strand of accountability into their distance education activities deprive themselves of an important means of ensuring that complex operations that must be unfailingly efficient are indeed so. And universities that are not systematically reviewing and evaluating what they are doing are failing to develop a rational basis for judging its effectiveness.

Our last word must stress the stubborn realities of new ventures in distance education as in other enterprises. Institutions moving into distance education typically underestimate how much time is needed to make appointments, purchase set up and house equipment, plan and write courses, and publish study materials for students. Like most universities, furthermore, UWI works to an annual calendar : if deadlines are not met courses must be deferred for introduction for at least a semester and often for an academic year. We therefore urge the University to develop its plans with a keen sense of cautious realism.

THE PROSPECT

There has never been a better time for UWI to develop and strengthen its teaching by distance modes. Both in its pedagogy and the technologies available to it, distance education has been transformed during the last twenty years. There is a wealth of experience to draw on.

Through the Challenge Programme and UWIDITE the University has increased the opportunities for off-campus study and paved the way for the further developments we propose. Advances in communications technology now make it possible for lecturers and off-campus students to talk to each other and exchange fax messages throughout the University's 14 member countries. By enhancing communication they also greatly increase the possibilities for cooperation between teachers at UWI and other tertiary learning institutions in the Caribbean. Advances in the print technologies now mean that printed materials - the indispensable requirement of independent study - can be produced and distributed speedily and economically.

Throughout the Commonwealth Caribbean, as elsewhere, there is a strong conviction that distance modes offer the best and, for many people, the only hope of increasing access to University study. And there is, as well, a growing awareness that, as time goes on and regardless of whether they are near to or far from universities and other educational institutions, more and more people will be students whose preferred ways of learning will be through the modes of distance learning. By going more comprehensively dual mode, UWI will be preparing for that future as it develops its capacity to respond to its present responsibilities for off-campus students.

The challenge that now faces the University is thus also an historic opportunity. The immediate task is of course to put distance education on a sound base for the benefit of men and women and the greater good of their territories. But there is an important international dimension as well. There are initiatives that can be taken in the Caribbean, there are lessons to be learnt, and there are possibilities to be explored that can add significantly to international understanding of one of the central concerns of education, training, and national development - the theory and practice of distance education.

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Dr. Renwick has been actively engaged in international educational organisations since 1970. He has been a member or leader of New Zealand delegations to Commonwealth Education Conferences (1971-87), a member of the OECD Education Committee (1972-88), and a member (1972-88) and chairman (1977-8) of the OECD Centre for Educational Research and Innovation. He has led, or been a member of, New Zealand delegations to various General Conferences and regional conferences of UNESCO, meetings of South East Asian Ministers of Education, and of Australian and New Zealand Ministers of Education and senior officials.

He has carried out consultancies to review educational policies in Norway (for OECD, 1974); the Commonwealth Secretariat (1976); Victoria, Australia (1981); The University of the South Pacific (1981); Vanuatu (1983 and 1984); and the Solomon Islands (1984). He was a member of the Working Group (the Daniel Committee, 1988) set up by the Commonwealth Secretary-General to develop the institutional arrangements for The Commonwealth of Learning, and he is a foundation member of its Board of Governors. During 1990-1 he led the team that reviewed distance education in the University of the South Pacific. The report of that review is published as: Distance Education at the University of the South Pacific, William Renwick, St. Clair King, Doug Shale, The Commonwealth of Learning, Vancouver, 1992.

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Dr. Shale's field of research and publication covers a wide range of issues in distance education, including delivery systems, teleconference applications, and educational broadcasting. As an academic analyst he has conducted studies on needs assessments, student characteristics and demographics, market analysis, programme and course evaluations, and the evaluation of institutional effectiveness. He was one of the authors of Distance Education at the University of the South Pacific, The Commonwealth of Learning, Vancouver, 1992.

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After three decades of teaching and research at the Andhra University, Waltair and Hyderabad University, Hyderabad (both in India). Professor Rao was appointed Vice-Chancellor of India's first Open University since renamed as Dr. B.R. Ambedkar Open University in 1989. As a Political Scientist he has specialised in the areas of Comparative government, constitution law and international relations. He has been a Visiting Professor at the University Champaign of Wisconsin (Madison) and Illinois University, Urbana.

He has been a consultant in distance education to the Andhra Pradesh Open University from its inception and is a member of the Executive Committee of Asian Association of Open Universities. Recently he was made a member of a Committee on Distance Education constituted by the Central Advisory Board of Education, Government of India.

APPENDIX

Record of the people interviewed in the University of the West Indies, in 11 of its member countries, and in the University of the Virgin Islands, during visits made by members of the Appraisal Team in May and October-November 1991 and June 1992.

THE UNIVERSITY OF THE WEST INDIES

Mona Campus

Hon. Sir Alister McIntyre	Vice-Chancellor, University of the West Indies
Professor the Hon. L.R.B. Robinson	Former Principal*
Professor the Hon. G.C. Lalor	Principal, Pro Vice-Chancellor Science and Technology
Dr. Marlene Hamilton	Deputy Principal, Pro Vice-Chancellor Women and Development Studies and Science Education
Professor the Hon. R.M. Nettleford	Pro Vice-Chancellor Outreach and Institutional Relations
Professor K.E. Magnus	Dean, Faculty of Natural Sciences
Dr. Dilip Raje	Dean, Faculty of Medical Sciences
Dr. Pauline Christie	Dean, Faculty of Arts and General Studies
Dr. Hyacinth Evans	Dean, Faculty of Education
Professor Daphne Douglas	Department of Library Services
Dr. Don Robotham	Head, Department of Sociology and Social Work
Professor Randolph Williams	Head, Department of Management Studies
Ms. Meta Bogle	Head, Department of Education Studies

* Since October, 1991, Coordinator of COL Programmes (Caribbean)

Professor Aggrey Brown	Director, Caribbean Institute of Mass Communication
Mr. Lascelles B. Smith	University Bursar
Dr. Kathryn Shields-Brobder	Department of Linguistics and Use of English
Mr. Uriel Salmon	Lecturer in Accountancy
Mrs. Alma Mock Yen	School of Continuing Studies
Ms. Veronica Salter	Administrative Officer, OUS, N.W. Caribbean
Mrs. Janet Brown	Caribbean Child Development Centre
Mrs. Lilith Williams	Project Officer, Faculty of Medical Sciences
Ms. Christine Marrett	Project Officer, UWIDITE
Mrs. Vilma McClenan	Programme Coordinator, UWIDITE
Mr. Courtney Walker	Technical Officer, UWIDITE
Dr. Ina Barrett	Department of Government (Co-ordinator, Certificate in Public Administration)
Mrs. H. McKenzie	Acting Regional Coordinator Women and Studies
Dr. Marjan de Bruin	Caribbean Institute of Mass Communication
Dr. Ashley Griffith	CIDA Institutional Strengthening Project

Cave Hill Campus

Sir Keith Hunte	Principal and Pro Vice-Chancellor
Professor W.K.Marshall	Deputy Principal, Pro Vice-Chancellor Academic Affairs
Professor G.A.C. Grell	Pro Vice-Chancellor, Office of University Services
Dr. B.F. Peters	Office of University Services

Mrs. Howell	Office of University Services
Professor A. Ralph Carnegie	Faculty of Law, Coordinator UWI/USAID Caribbean Justice Improvement Project
Mr. Rahim Bacchus	Deputy Dean, Faculty of Law
Mr. Tyrone E. Barker	Faculty of Social Sciences
Dr. Peter Roberts	Dean, Faculty of Arts and General Studies
Professor E.R. Walrond	Dean, Faculty of Medical Sciences
Dr. L.L. Moseley	Dean, Faculty of Natural Sciences
Dr. D. Broomes	Faculty of Education
Mr. Michael Gill	Campus Librarian
Ms. Elizabeth Watson	Librarian, Learning Resource Centre

St. Augustine Campus

Professor A.M. Richards	Principal and Pro Vice-Chancellor
Professor Compton Bourne	Pro Vice-Chancellor, Planning
Professor K.A. Butler	Dean, Faculty of Medical Sciences
Professor D.R. McGaw	Dean, Faculty of Engineering
Professor St. Clair King	Faculty of Engineering
Professor Ashton Parris	Faculty of Engineering
Dr. M. Chin	Head, Department of Civil Engineering
Mr. C. Imbert	Faculty of Engineering and Chairman of Continuing Education Committee
Professor R. Saunders	Dean, Faculty of Natural Sciences
Professor Pat Rooney	Head, Centre for Medical Science Education

Professor L.A. Wilson	Dean, Faculty of Agriculture
Mr. Carol Keeler	Dean, Faculty of Education
Dr. R.M. Henry	Head, Department of Economics
Mr. Carl Parris	Dean, Faculty of Social Sciences
Mr. Lloyd King	Dean, Faculty of Arts and General Studies
Dr. F.A. Baptiste	Deputy Dean, Faculty of Arts and General Studies
Mr. E.D. Ramesar	Associate Director, School of Continuing Studies
Dr. S.W. Carrington	Faculty of Arts and General Studies
Dr. Bridget Brereton	Faculty of Arts and General Studies
Dr. Barbara Lalla	Faculty of Arts and General Studies
Mrs. C. Redhead	Senior Assistant Registrar, Student Affairs
Dr. G. Sirju-Charran	Coordinator, Women and Development Studies Group
Mrs. J. Morris	Faculty of Education
Dr. R. Reddock	Project of Cooperation in Teaching and Research in Women and Development Studies
Mr. D.A. Gibson	Technical Adviser (Medical Education)

ANTIGUA

Mr. Whitfield Harris	Chief Education Office, Ministry of Education
Mr. Deryk Michael	Deputy Chief Executive Officer
Dr. Carlyle Mitchell	Director, Economic Affairs Secretariat, Organisation of Eastern Caribbean States

Dr. David Kelsick	Chief, Finance and Administration
Dr. Alistair Francis	Principal, Antigua State College
Dr. Ermina Osoba	Resident Tutor, University Centre

BAHAMAS

Mr. Matthew William	Resident Tutor, The University Centre
Mr. J. Anthony Hall	Centre for Hotel and Tourism Management
Dr. Kwame R. Charles	Centre for Hotel and Tourism Management
Mr. Ronald D. Braithwaite	Centre for Hotel and Tourism Management
Mr. Stan Phillips	Caribbean Regional Hotel Training Programme
Dr. Eleanor Thompson	Deputy Principal, College of the Bahamas
Mrs. Joyce Thompson	Academic Dean, College of the Bahamas
Mrs. Inez Peet	Director, Continuing Education and Extension Services, College of the Bahamas
Dr. Lynette Haddox-Gordon	Chief Hospital Administrator, Nassau General Hospital
Dr. Patrick Roberts	Chief Paediatrician, Nassau General Hospital
Dr. Carlos Mulraine	Director, Community Health, Nassau General Hospital

BARBADOS

Hon. Cyril Walker	Minister of Education
Mr. V. Carlyle Carter	Permanent Secretary, Ministry of Education
Mr. Gordon Medford	Deputy Chief Education Officer (Planning and Development)

Mr. Stanley Medford	Deputy Chief Education Officer (Schools)
Mrs. Pamela Hinshan	Senior Education Officer, Tertiary
Mr. Mike Owen	Chief Audio Visual Aids Officer
Mr. Errol Berkeley	Chief Project Officer, Caribbean Development Bank
Mr. Wilfred Beckles	Registrar, Caribbean Examinations Council
Dr. Kevin Lillis	Regional Educational Adviser, British Development Division
Dr. Elizabeth Ferdinand	Senior Medical Officer of Health
Mrs. Norma Holder	Principal, Barbados Community College
Dr. Jeremy Collymore	Co-ordinator, Caribbean Disaster Emergency Response Agency
Mr. Astley Leslie	ILO/CLAC - Regional Labour Administration Adviser

BELIZE

Hon. Said Musa	Minister of Education
Mrs. Sandra Hall	Permanent Secretary, Ministry of Education
Mr. Ernest Raymond	Chief Education Officer
Mrs. Hazel Avery	Principal Education Officer, Secondary Schools
Mrs. Justin Palacio	Acting Training Officer, Establishment Department
Dr. Angel Cal	President, University College of Belize
Mr. Joseph Belisle	University College of Belize
Mrs. Eve Aird	University College of Belize

Mr. David Espat	Dean, St. John's College, Belize City
Ms. Georgia Belisle	Acting Principal, Belize Technical College
Mr. Vernon E. Card	Head, Department of General Studies, Belize Technical College
Mrs. Cynthia Thompson	Principal, Belize Teachers College
Eleven Certificate of Public Administration students	
Mr. Jocelyn Nembhard	Acting Resident, University Centre, Belize
Mr. Egbert Higinio	Assistant Supervisor, University Centre, Belize

DOMINICA

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Mr. Anthony Lockhart	Chief Education Officer
Mrs. Frances Harris	Principal, Dominica Teachers College
Mr. Vernon Shaw	Acting Resident Tutor, University Centre
Mr. Lennox Lawrence	Administrative Assistant, University Centre
Mr. Irish	Tutor, Financial Accounting, University Centre

GRENADA

Mr. Leland Jones	Chief Education Officer, Ministry of Education
Mrs. Theresa Killam	Chief Nursing Officer, Ministry of Health
Dr. de Vere Pitt	Principal, National College
Mrs. Beverley Steele	Resident Tutor, University Centre, Grenada

JAMAICA

Mr. Burchell Whiteman	Minister of Education
Dr. Lucille Mair	Minister of State, Ministry of Foreign Affairs
Dr. Rae Davis	Permanent Secretary, Ministry of Education
Professor F.R. Augier	Chairman, Caribbean Examinations Council
Dr. Alfred Sangster	President, College of Arts, Science & Technology

ST. KITTS & NEVIS

Hon. Sidney Morris	Minister of Education
Mrs. Patricia Hobson	Permanent Secretary, Ministry of Education
Mr. Joseph Halliday	Chief Education Officer
Mrs. Rita Cable	Principal, Basseterre High School
Mrs. Morine Dickinson	Principal Nursing Officer, Ministry of Health
Mr. Ross Bertram	Principal, College of Further Education
Miss Gweneth Hanley	College of Further Education
Mr. Constantine Richardson	Resident Tutor, University Centre

ST. LUCIA

Dr. Nicholas Frederick	Permanent Secretary, Ministry of Education and Culture
Dr. Vaughan Lewis	Director General, Organisation of Eastern Caribbean States
Mr. J. Emmanuel	Adviser, Special Programmes Organisation of Eastern Caribbean States
Mr. Leton Thomas	Principal, Sir Arthur Lewis Community College

Mr. Madison Stanislaus	Coordinator, Continuing Education Department
Mr. Robert D. Harvey	Assistant Coordinator, Continuing Education Department
Dr. George Knox	North Island College, Victoria, British Columbia, Commonwealth of Learning Fellow
Mrs. Marilyn Floissac	Resident Tutor, University Centre, St. Lucia

ST. VINCENT & GRENADINES

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Mr. M. Peters	Chief Education Officer
Miss Coob Van Loo	Education Planner
Mrs. Imogene Francois	Deputy Principal, St. Vincent Teachers College
Mr. Lennox John	Principal, St. Vincent High School
Dr. Adrian Fraser	Resident Tutor, University Centre

TRINIDAD & TOBAGO

Mr. Hem Lee	Parliamentary Secretary to Minister of Education
Mr. Hart Edwards	Permanent Secretary, Ministry of Education
Mr. Clive Borely	Chief Education Officer
Mrs. Gardner	Assistant to the Permanent Secretary
Dr. Alvin Ashton	Executive Director, National Institute of Higher Education, Research, Science, Technology

UNIVERSITY OF THE VIRGIN ISLANDS

Dr. Laverne Ragster	Director of Eastern Caribbean Centre and Programme Coordinator, Consortium of Caribbean Universities for Resource Management
Dr. Lynn Rosenthal	Coordinator for Academic Computing
Mr. Stephen Marsh	Microcomputer Specialist, Academic Computing
Mr. John Lucas	Microcomputer Specialist, Academic Computing
Ms. Chela Allen	Coordinator, Centre of Educational Technology
Dr. Dennis Harper	Professor of Education
Dr. Al Lewit	Coordinator for Academic Computing
Ms. Mary Szumila and Mr. Eddie Bruce	UWI distance education students in M.Ed. programme